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University of Cape Town

M.Phil. (CEM)



**The Evolution of Entrepreneurial Networks: A Case of the Networking
Behaviour of South African Built Environment Professionals**

Dissertation Presented to:

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Faculty of Engineering and the Built Environment

UNIVERSITY OF CAPE TOWN

In Fulfilment of the Requirements for the Award of the Degree of Masters of Philosophy

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The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily to be attributed to the NRF.

Declaration

I know the meaning of plagiarism and declare that all the work in the document, save for that which is properly acknowledged, is my own.

Rethabile Letsie

31 August 2011

University of Cape Town

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Abstract

Small medium scale enterprises (SMEs) create employment avenues that are vital in addressing unemployment in South Africa. In the built environment, SMEs enhance competition amongst firms and allow for the further development of medium to large scale entities. Built environment professionals need to remain innovative in order to retain competitive advantage within an increasingly competitive industry. Entrepreneurial networks provide access to beneficial information sources, which are integral for successful firm development. In examining the evolution of entrepreneurial networks of owner-managed SME firms, this dissertation investigates the networking behaviour of South African built environment professionals, by observing the network composition adopted over the duration of their respective businesses.

The single case study is the chosen research method. Semi-structured interviews were held with fourteen built environment professionals, covering a range of professional disciplines including Quantity Surveying, Architecture, Project Management, Structural Engineering and Property Development. The findings have suggested that the process of building the relationships constituting a network is individualistic, guided predominantly by an individual's personality, ambition and business motivation. The findings have disclosed that some of the built environment professionals had entered into their respective businesses with a pre-established formal network, which was beneficial in providing the essential support structures required during the emerging stages of firm development.

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CHAPTER 1: RESEARCH OVERVIEW

1.1 Introduction

This dissertation examines the evolution of the entrepreneurial networks of South African built environment, owner-managed, small medium scale enterprises (SMEs) operating within the emergent and early growth stages of the organisational life cycle. This observation has been made through investigating the networking behaviour of the SME owner-managers, by examining the network composition adopted over the duration of their respective businesses. For the purpose of this study, the networks are characterised by three main variables, namely: network ties, network range and network intensity.

1.2 Background to the Study

Entrepreneurship scholars have described networks as playing a central role in the successful emergence and growth of firms (See for example: Aldrich & Reese 1993; Birley 1985; Hansen 1995; Hite 1999; Hite & Hesterly 2001; Larson & Starr 1993; Stuart, Hoang & Hybels 1999). A network comprises a group of people with interlinking connections. These connections can constitute any type of social link that implies a relationship between two people (Wasserman & Faust 1994). Social links are important to entrepreneurs, who embed their business decisions within social structures (Greve & Salaff 2003). At the point at which the entrepreneurs' social contacts start contributing to their defined entrepreneurial goals, these social contacts are considered as their social capital (Greve & Salaff 2003). An entrepreneurial network may consist of relationships to organisations and individuals, including those instrumental in establishing the business in question (Greve & Salaff 2003).

The study of entrepreneurial networks highlights the role that the individual entrepreneur has in the discovery of various opportunities and the mobilization of resources (Hite 2005). Observed at the individual level, the field of entrepreneurial networks considers the relationships, or ties, of the entrepreneur with other individuals and organisations. Network ties are essential to providing conduits through which firms can access external opportunities and resources. These network ties are influential to the

extent to which opportunities and resources can be identified, accessed, mobilized and exploited (Hite 2005).

Watson (2007) indicates that network ties comprise both strong ties and weak ties. The intimate social circle of individuals with similar qualities (e.g. family and close friends) is characterised by strong ties (Lin 1982). The infrequent interactions and peripheral relationships among dissimilar individuals are characterised as weak ties (Lin 1982), and are essential in enabling the dissemination of crucial information and bridging communication gaps.

This current study is based on research conducted by Hite and Hesterly (2001), and Watson (2007). Hite and Hesterly (2001) make a compelling argument for the non-static nature of entrepreneurial networks, stating that these networks continuously evolve in relation to the changing resource needs and challenges of emerging firms. In entrepreneurship research, organisational life cycles are used to illustrate how firms evolve through progressive stages. Hite and Hesterly (2001) acknowledge that the use of organisational life cycles is beneficial in structuring the general processes of firm evolution, as each stage not only depicts changes over time, but also represents 'a unique strategic context that influences the nature and extent of a firm's external resource needs and resource acquisition challenges' (Hite & Hesterly 2001, p. 276). The authors focus their study on the emergence and early growth stages of firm development. They consider that the early dynamic stages are critical in highlighting the tension between preferred network compositions, namely, whether networks characterized by strong ties (embeddedness and cohesion), or weak ties (structural holes) are the most likely to deliver the required benefits.

Hite and Hesterly (2001) argue that the personal social network of the entrepreneur is virtually synonymous with the firm's network during the emerging stages of its development, as networks initially exist on the inter-personal level (Bhide 1999; Hite & Hesterly 2001; Zaheer *et al.* 1998). However, as the firm formalizes, inter-personal

network ties evolve to become inter-organisational ties, which provide beneficial resource exchange relationships between organisational entities (Hite & Hesterly 2001).

Hite and Hesterly (2001) claim that when firms are first established, the network comprises predominantly strong ties. These networks focus to a greater extent on the identity of the network member, than the specific economic function afforded, as the ties generally stem from 'pre-existing relationships with family, or historically long-held sources' (Hite & Hesterly 2001, p. 278). As the firms progress into the early growth stage, their networks evolve towards 'calculative ties, which are based on the calculation of economic costs and benefits' (Hite & Hesterly 2001, p. 278).

Watson (2007) classifies entrepreneurial networks as either being formal or informal, differentiated by the structural composition of the network members, further asserting that formal networks generally comprise weak ties, whereas informal networks typically comprise stronger ties. These ties signify the strength of the relationship between the entrepreneur and the individuals who comprise their network. Watson (2007) examines network composition by presenting three variables: network ties, network range and network intensity. Network range considers the size of the network, while network intensity regards the frequency of communication with the members of the entrepreneur's network.

The entrepreneurial networks examined during the course of this study have been characterized in accordance with these three variables. This study considers whether the network composition of the entrepreneurial networks observed evolves as the owner-managed SME firms progress from the emergent to the early growth stage of the organisational life cycle.

1.3 Problem Statement

Entrepreneurial networks play a central role in the successful emergence and growth of firms through facilitating critical channels to the acquisition of beneficial resources (Hite & Hesterly 2001). Built environment professionals owning and managing SME firms need to remain inventive in order to gain and retain competitive advantage within an increasingly competitive industry; this impels built environment professionals to adopt an entrepreneurial stance in their respective business strategies, wherein networking constitutes a vital role. While there is consensus about the general importance of networks for firms, there is, however less agreement in determining which network composition is advantageous for firms, from their period of emergence to their growth and development (Hite & Hesterly 2001).

1.4 Research Purpose

The purpose of this dissertation is to explore the evolution of entrepreneurial networks of South African built environment owner-managed SME firms.

1.5 Research Question

How does the entrepreneurial network composition of South African built environment professionals evolve as their owner-managed SME firms progress?

1.6 Research Objectives

In this study, the objectives are as follows:

1. To examine the entrepreneurial networks of South African built environment SME owner-managers.
2. To investigate the network composition adopted by the SME owner-managers during the emergent and early growth stages of the firm.

1.7 Graphical Representation and Research Propositions

This section presents the propositions extended by this current study in a graphical representation. This is the researcher's portrayal of the network variables as they relate to the stages of the organisational life cycle. This graphical representation has not been sourced from any author, but is based on literature, particularly the research conducted by Watson (2007) and Hite and Hesterly (2001).

1.7.1 Graphical Representation

The graphical representation illustrated in figure 1.1 below, illustrates the positioning of emergent and early growth firms in relation to the three characterised network variables: network ties, network range and network intensity. This representation depicts network range and network ties respectively on the axes of the diagram, while network intensity is symbolised by the shaded sphere: the higher the intensity, the larger the shaded area.

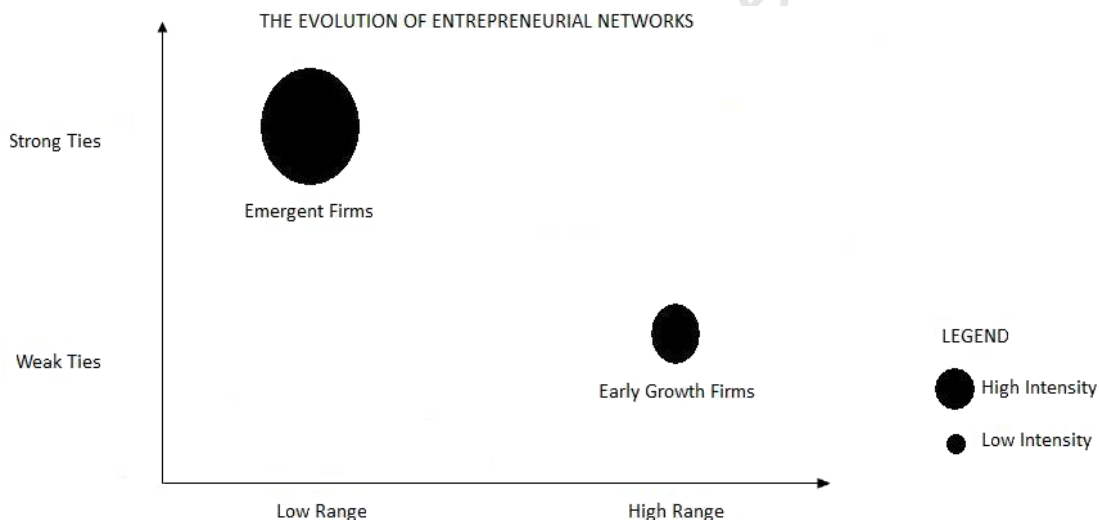


Figure 1.1. A Graphical Representation of the Evolution of Entrepreneurial Networks

Figure 1.1 suggests that as a firm emerges, the built environment professionals' networks are informal, comprising of strong ties, with a low network range and a high networking intensity. As a firm progresses into the early growth stage, however, the network composition changes. At this stage the built environment professionals' networks begin to formalise, comprising of weak ties, with a high network range and a low networking

intensity. This graphical representation depicts the evolution of entrepreneurial networks as examined in this dissertation.

1.7.2 Research Propositions

1. Entrepreneurial networks evolve as firms progress from emergent to early growth stages.
2. Emergent firms adopt informal networks characterized by strong ties, with a high networking intensity and a low networking range.
3. Early growth firms adopt formal networks characterized by weak ties, with a low networking intensity and a high networking range.

1.8 Definitions of Terms

The terms *network* and *networking* have been used extensively throughout this current study. It is therefore essential that these terms be clarified for the context in which they have been applied. “A network” denotes the noun, “to network” signifies the verb, and the participle form “networking” depicts the activity of developing and maintaining the relationships beneficial to a network (Chell & Baines 2000).

Entrepreneurial networks can briefly be described as the relationships or contacts that entrepreneurs build in order to obtain the resources beneficial for successful and sustained firm development (Premaratne 2002). In this study, the structural composition of the entrepreneurial networks examined, are characterised by network ties, network range and network intensity.

Networking behaviour pertains to the activity of networking, specifically to the manner in which network relationships are developed and maintained with key resource-holders (Neegard 2005).

Organisational life cycles are models that are based on the premise that over the course of time, firms evolve through progressive developmental stages, in a fairly predictable

manner. These models, although many and varied, address the identifiable stages and specific life cycle characteristics of the firm (Low & Abrahamson 1997). The two stages of the organisational life cycle examined over the course of this current study are the emergent and early growth stages of firm development. The *emergent* stage of firm development commences when the firm is legally created (Gartner *et al.* 1992; Gartner & Brush 1999). It is characterized by high degrees of uncertainty related specifically to resources, routines, products and the environment (Hite & Hesterly 2001). Lester *et al.* (2008), note that emergent firms relate to those that are aged between 0 and 3 months, determined from the date of business registration. The *early growth* stage is characterized as the point at which the firm makes clear strategic decisions to intentionally grow. This phase of firm development requires a broader scope of resources than previously needed, although at this stage firms are likely to have experienced a build-up in reputation and an accumulation of resources (Hite & Hesterly 2001). Early growth firms are aged between 3 months and 42 months, determined from the date of business registration.

In Chapter 4, reference is made to the term *personality*. This term refers to the built environment professionals' individuality, unique perspectives on networking and distinctive propensities to building up the relationships constituting a network. This study does not use this term as it relates to the common definition of 'a dynamic and organised set of characteristics possessed by a person, that uniquely influences his or her cognitions, motivations and behaviours in various situations' (Ryckman 2000, p. 5). Personality psychology literature identifies specific personality theories and personality tests. This study has not conducted any personality tests on the built environment professionals nor has it examined any personality theories, it merely seeks to underline the distinctions observed between the individual built environment professionals interviewed.

Owner-managers are a heterogeneous group. Allinson *et al.* (2000) acknowledge that not all owner-managers are entrepreneurs, but for the purpose of their research defined entrepreneurs as 'owner-managers who seek to identify and pursue opportunities for

capital accumulation and growth' (Allinson *et al.* 2000, p. 32). The current study observes SME firms that are owner-managed by South African built environment professionals. For the purpose of this study, these professionals are regarded as entrepreneurs, who are owners and operational managers of SME firms within the built environment.

The *professions* included within the scope and definition of the built environment consist of 'Architecture, Quantity Surveying, Construction Management and related Project Management, Building Science, Landscape Architecture, some sub-disciplines of Engineering such as Civil Engineering, Town and Urban Planning, Land Surveying and other construction-related fields' (McKechnie 2008). In this study the built environment professionals referred to are those who would constitute the professional team in any construction development project. The professional fields that have been considered include; Quantity Surveying, Architecture, Project Management, Structural Engineering and Property Development.

1.9 The Research Method and Philosophical Framework

This dissertation adopts a single case study method, which incorporates an embedded design. Yin (1984) suggests that the single case design may be used to confirm or challenge a theory, or to represent a unique or extreme case. The use of a critical case is suitable for a researcher seeking to test a 'well-formulated theory' (Yin 1984, p. 43), where this theory has specified propositions and relays a clear understanding of the circumstances within which the propositions are believed to be true. A critical case can be used to determine the coherence of the stated propositions or ascertain whether there are other competing explanations that are more appropriate. In this manner, the use of the critical case can extend the generation of knowledge and theory building (Yin 1984). Where a case is extreme or unique, a single case design is suitable. This is applicable when 'there has been no opportunity, in practice or in research, to uncover and confirm common patterns' (Munhall 2001, p. 368). A revelatory case is one that brings understanding to a phenomenon, obscurely understood (Munhall 2001).

This study has clear and distinct propositions, which provide anchorage and direction. There is broad international theoretical premise on the subject of networks and

entrepreneurship, which is well formulated. This serves to provide this specific case study with substantial theoretical endorsement, as the networking activity of South African built environment professionals has not been adequately explored. Thus, this study is revelatory in nature, bringing enlightenment to the entrepreneurial networks and networking behaviour of built environment professionals, within a South African context.

When attention is given to a subunit, or subunits, the design consideration is referred to as an embedded case study design. The main advantage is that this case study design outlines clear and precise subunits, which serve to guide the researcher through the process, acting as a good point of reference during the undertaken study (Yin 1984). A key disadvantage arising with an embedded design is experienced when the researcher focuses only on the sub-unit level, and does not relate this subsidiary analysis back to the larger unit of analysis, which is the actual basis for the case under observation (Yin 1984). While this study has clear and distinct propositions, these propositions do not limit the researcher's view to focus only on the sub-unit level, as the data analysis has been conducted in a manner that allows the emergence of new and pertinent themes. These themes relate back to the propositions under observation, which constitute the examined case.

A qualitative, interpretive and inductive philosophical framework underpins the current study. A qualitative research methodology allows the researcher to deduce more about a situation, by studying the observations embedded within the research, as opposed to experimental measurements. This essentially enables the researcher to immerse themselves in the research collection process through active involvement and participation (Creswell 1994). Interpretivism allows a study to unfold through the assistance of its research informants (Hudson & Ozanne 1988), and is, therefore, potentially more relevant in practice, due to its 'contextual grounding' (Kazanchi & Munkvold 2002, p. 2). Inductive reasoning is more open-ended and exploratory. The conclusions are based on a defined set of premises and the detection of patterns and regularities (Burney, 2008). The main rationale that has propelled the implementation of a qualitative, interpretive, inductive philosophical framework to this study has been the

degree of uncertainty surrounding the topic, as well as the paucity of prior research conducted in this specified area of interest.

1.10 Justification of the Selected Research Approach

Jack (2010, p. 120) highlights the prevalent trend in network research that has essentially seen preference for 'quantitative research techniques and large-scale surveys' over qualitative output. Jack (2010) claims that while these quantitative techniques have been useful in portraying the structural features of networks and measuring the extent of networking activity, specifically aspects such as 'extensiveness, density, activity levels, centrality, size and reachability of networks' (Jack 2010, p. 120), such methods have provided limited information on the 'content of relations and what actually goes on in and between the connections' (Jack 2010, p. 120).

Jack (2010, p.120) notes that the application of qualitative approaches within network research enables the derivation of a more in-depth understanding, through conveying 'richer and more detailed investigations of the ties that link actors'. A qualitative assessment broadens the understanding of what goes on inside a network, through providing 'knowledge about the content of network relations, the processes involved, how networks evolve, change and develop over time, as well as the extent to which networks support and/or constrain the ways in which entrepreneurs and their ventures function, operate and are managed' (Jack 2010, p. 120). The researcher concurs with the assertions put forward by Jack (2010), in justifying the adoption of a qualitative perspective to this study, despite the dearth of qualitative studies in network research.

There has been limited prior investigation and lack of substantial literature related to the evolution of entrepreneurial networks and the networking behaviour of South African built environment professionals. This has subsequently prompted the use of international literature, specifically within the fields of "networks" and "entrepreneurship". These distinct fields have been applied to the South African built environment context, where it was established that the empirical research conducted within these respective fields had mainly been of a positivist, deductive nature. While the literature, applying a positivist and deductive stance, has been able to convey what the nature of the networks are, in

the vast studies conducted, they have not been as successful in portraying why certain aspects transpire; what the intentions, the actions, the contexts, the processes surrounding the specific decisions and choices made by the entrepreneurs have been, which has subsequently diminished the depth and richness of the studies conducted (Jack 2010). This dissertation is aimed at conveying these afore-described perspectives, by giving built environment professionals an opportunity to delineate what their own individual experiences have been.

1.11 The Case Study: South African Built Environment Owner-Managed SME Firms

The South African construction sector is one of the country's key drivers of job creation, employing a labour force of approximately '1, 076 million' in the third quarter of 2010 (Statistics South Africa 2010, p. viii).

The South African small medium scale enterprise (SME) landscape is regarded as an essential instrument in addressing the unemployment levels prevalent in South Africa, and is useful in enabling a more equitable distribution of wealth within the South African built environment. SMEs play a vital role in addressing the challenges of job creation, economic growth and equity in South Africa (Agumba 2006). SMEs are innovative initiators of work opportunities for the South African labour force. They play a pivotal role in 'absorbing labour, penetrating new markets and generally expanding economies in creative ways' (Agumba, 2006, p. 20). The Department of Trade and Industry considers SMEs as essential conduits, beneficial in enhancing a more competitive environment particularly within the built environment. This is mainly attributed to their ability to control and limit overheads, as well as enabling a platform for the further development of medium to large-scale entities, administered by previously disadvantaged practitioners (DTI 1995).

This study acknowledges that professional SME firms may differ from the universe of SME firms, and also recognises, that professional SME firms within the built environment may further differ from the collective SME firms within the industry.

1.12 The Unit of Analysis

In qualitative research, the term unit of analysis represents the 'who' or 'what' (Trochim 2006) the study intends to base its assertions on. It represents the 'group of people, documents, events, or specimens', from which the researcher is interested in collecting data (Botma *et al.* 2010, p. 291). A unit of analysis can also be 'the individual case or group of cases that the researcher seeks to express something about when the study is completed' (Teddlie & Tashakkori 2009, p.169).

In this study, the unit of analysis has been identified as professionals operating within the South African built environment, specifically the ensemble of practitioners that constitute the professional team in any undertaken construction development project.

1.13 Sampling Technique

This study adopts a non-random or a non-probability sampling procedure, through the implementation of a purposive sampling strategy. Purposive sampling is based on the identification of a sample, with pre-defined intentions. It is defined as a 'selection of units based on specific purpose associated with answering the research question' (Teddlie & Tashakkori 2009, p. 22).

Snowball sampling is a sub-category of purposive sampling, and involves capitalising on respondents' social networks to identify other respondents, who would otherwise be hard to locate or access. Snowball sampling, which is also referred to as chain sampling, chain-referral sampling, or referral sampling, is a link-tracing methodology that 'relies on a series of referrals that are made within a circle of people who know each other or are loosely connected with one another' (Brackertz 2007, p. 3). The interviewees are asked to name another person whom they feel may fit the criteria, pre-determined by the researcher. These newly identified individuals are subsequently interviewed, at which time they are requested to nominate other individuals who fit the criteria (Brackertz 2007). While this sampling technique is hardly going to result in representative samples, it is especially useful when trying to access samples that are inaccessible for myriad factors.

Snowball sampling is justified when seeking an in-depth understanding of selected individuals, and not when seeking to accurately represent a defined sample. This study has implemented snowball sampling as the chosen sampling technique due to the limited access the researcher had to the unit of analysis, directly attributed to their limited availability or complete inaccessibility.

In this study, the snowball sampling strategy began with two contacts known to the researcher through this study's research supervisor. These initially identified contacts, in turn, offered referrals to other professionals, possessing the sought after characteristics, for participation within this study. The initial contacts were acknowledged within the resulting correspondence with the subsequently referred professionals. It was found that in acknowledging the "referrer", the referred professionals became more willing and enthusiastic about giving of their time and agreeing to be interviewed.

1.14 Ethical Considerations

Adhering to ethical principles is of paramount importance for any research study, particularly for studies that extract data from research participants. In undertaking this study, a panel of researchers critiqued and directed the area of research. The revised research scope and topic was then presented to the University faculty's ethics committee, which accepted the research topic and provided clearance to proceed with the study. This process has served to enhance the study's validity. Prior to commencing with the interviewing process, the interview questions were verified, and where necessary, refined by the research supervisor. This served to ensure that an ethical standard was maintained throughout the data collection phase of the research.

Brink *et al.* (2006) argue that research participants have a right to self-determination. The built environment professionals identified as potential interviewees were, therefore, given the option to decline the invitation to participate in the interviewing process. The professionals that did agree to participate in the interviews were sent a generic introduction email, which provided them with a broad overview of the research topic and the type of questions they would be asked during the interview. This introduction email, included as Appendix C, assured the participants of their anonymity and informed them

not to include any personal information relating to their networks, unless they were comfortable to do so. During the interviews, the researcher asked the participants if the interviews held could be recorded. None of the interviewees objected to being recorded. This allowed the researcher to devote complete attention to the interviewee and to conduct the interview in an organised manner.

1.15 Data Collection

This study has adopted a 'focused' (Yin 1984) interviewing style. This interviewing method is also commonly referred to as semi-structured. The data was collected through semi-structured interviews, which were audio recorded. Rozakis (2004) indicates that the recording of interviews enables a more inclusive and precise record of the data, allowing the interviewer to allocate complete attention to the respondent. Additional hand written memos were recorded, and in certain instances, respondents were asked to reiterate points of particular interest. Individual level data was collected through conducting interviews with built environment professionals. These interviewees identified themselves as the owner-manager of the SME firm. They were, therefore, capable of answering the questions posed. The interviewees recounted their respective experiences of their duration within the built environment. Appendix A illustrates the interview questions posed, whilst Appendix B presents an example of an interview transcript.

1.16 Data Analysis

There are three dominant analytical techniques that can be applied within a case study framework: pattern-matching, explanation-building, and time-series analysis. These three analytical techniques do not preclude the use of other techniques, especially in the instance in which a case study has embedded units of analysis or when a large number of case studies require analysis (Yin 1984). Therefore, this study has adopted thematic analysis as the principal technique upon which the interpretations of the findings of this dissertation have been based. Thematic analysis is a process of analysing data based on 'commonalities, relationships and differences across a data set' (Gibson & Brown 2009, p. 127). The term 'thematic' pertains to the aggregation of themes within data.

In seeking to examine the evolution of entrepreneurial networks of emergent and early growth owner-managed SMEs operating within the South African built environment, this study has identified the overarching themes of analysis: networking behaviour, entrepreneurship, network composition, network evolution and firm development. These themes serve to guide the course of this analysis on the examination of the networking behaviour of South African built environment professionals.

1.17 Case Study Research Method Validity and Reliability

Guba and Lincoln (1981) assert that quantitative and qualitative research paradigms require paradigm-specific criteria. In a quantitative paradigm, the criteria used to test research rigour are internal validity, external validity, reliability and objectivity (Guba & Lincoln 1981). In a qualitative paradigm, credibility, transferability, dependability and confirmability are used as the main testing criteria for research “trustworthiness” (Lincoln and Guba 1985). Morse *et al.* (2002) have noted that focusing on testing criteria that are not inherent to the research methods applied, could result in a de-emphasis of the self-correcting mechanisms that have been built into each phase of the research strategies that ensure the quality of the project. With this in mind, this study has adhered to the four-tiered validity and reliability design test, extended by Yin (1984, 1994), in order to enhance the credibility of implementing case study as a principal research method. This design test is used by case study researchers and is summarized in numerous social science texts, as the benchmark in achieving the desired quality and credibility of case study research.

1.18 Value of the Study

There has been limited prior investigation and lack of substantial literature available on the entrepreneurial networks and networking behaviour of built environment professionals. The purpose of this study is, therefore, to bring enlightenment to the entrepreneurial networks and networking behaviour of built environment professionals owning and managing SME firms, by exploring this unique concept within a South African contextual setting. In conducting this study, the researcher anticipates to extend the literature currently available on this subject matter.

1.19 Dissertation Structure

Chapter 1 provides an introduction to this study. In this chapter the background to the study, the research problem and the research question have been dealt with.

Chapter 2 contains an examination of pertinent and relevant literature. This chapter introduces the reader to concepts which are addressed in the current study.

Chapter 3 outlines the research methodology.

Chapter 4 presents the empirical research findings.

Chapter 5 provides a discussion of the research findings draws conclusions and offers recommendations based on the findings stated in Chapter 4.

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CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter explores the current literature pertaining to network and entrepreneurship research. The sections to follow review the main themes generated by this study: networking behaviour, entrepreneurship, network composition, network evolution and firm development. Section 2.2 begins with a discussion of networking behaviour, and a description of the background to network research before investigating the meaning and value of networks within the field of entrepreneurship. Section 2.3 provides a brief overview of entrepreneurship theory, clarifies the role of networks within the entrepreneurship process, and also introduces a discussion of entrepreneurial networks and the composition thereof. Section 2.4 examines the South African built environment, taking into cognisance the professional fields considered in this study. Section 2.5 outlines the varying and distinct stages of the organisational life cycle, and illustrates the stages relevant to the current study. Section 2.6 describes the simultaneous evolution of firm development and network composition.

The literature presented in this chapter is comprehensive and presents contrasting perspectives on the various themes generated by this study. The researcher's objective in presenting this theory is to directly address the pertinent topics and not to produce a protracted theoretical debate.

2.2 Networking Behaviour

Neegard (2005) describes the entrepreneur's networking behaviour as one of the constituents that are key in the emergence and development of a firm, stating that 'extensive networks are now viewed as critical for the growth of an entrepreneurial venture' (Neegard 2005, p.257) because of the access they provide to myriad resources, held by other actors. The networking behaviour of SME owner-managers relates to the manner in which network relationships are developed and maintained with key resource-holders. Burt *et al.* (1998) express that networking is associated with behaviour, particularly with an individual's capability and propensity to form network ties. This ability and willingness to form network ties may differ from individual to individual (Burt

et al. 1998). Neegard (2005, p. 259) elaborates that not all entrepreneurs may be 'willing and active networkers', indicating that those entrepreneur's who are not proactive networkers may restrict their access to crucial resources. Baron and Markman (2000) suggest that good social, interpersonal and communicative skills are integral to what constitutes a "good networker", a characteristic that is vital in securing the resources beneficial for the firm. Networking behaviour is described as enhancing the innovation output and competitiveness of firms (Ahuja 2000; Powell *et al.* 1996). Curran and Blackburn (1994) describe the networks of owner-managers as small and non-expensive, and the nature of their development and formation as unstructured and coincidental. Gilmore *et al.* (2001, p.7) depict SME networking as 'informal, loose, unstructured, spontaneous and reactive'.

2.2.1 The Background to Networks

Varying interpretations regarding the constitution of a network exist. Nowhere else is this more apparent than in the network literature, where a substantial number of definitions incorporating different aspects have been offered on this topic. This section provides an overview of the background of networks, through conveying the various perspectives that have been discussed on this subject matter.

Networks Defined

Nelson (1988) describes networks as sets of ties, which link numerous actors with one another, while Hoang and Antoncic (2003) define networks as comprising of a set of actors linked together by specific relationships. Nelson (1988) and Hoang and Antoncic (2003) agree that the notion of networks inherently constitutes 'the link' between the actors within a diverse network system. Social relations are deeply embedded within the fabric of every individual's life. Entrepreneurs are in fact considered as 'a product of their social environment, as they perceive opportunities influenced by social interaction and social background' (Jack 2010, p. 123). Networks can enlarge the size of an entrepreneur's information hub. They provide conduits, which enable the flow of essential information and as well as other resources, where central positioning within a network ensures direct access to the source of information (Greve & Salaff 2003). Networks not only influence individuals, but also affect the development, management

and longevity of organisations (Jack *et al.* 2008). Parkhe *et al.* (2006) suggest that networks are re-configuring the global business architecture.

The Significance of Networks

Bruderl and Preisendorfer (1998) claim that one of the key assets to the advancement of any enterprise includes the establishment of personal business contacts and networks. Entrepreneurs often utilize a 'personal network of long-standing relations with trusted family members, colleagues, accountants, customers, suppliers and the bank' (Bruderl & Preisendorfer 1998, p. 215), and the establishment of such a diverse and multi-disciplinary network base may present itself as being an entrepreneur's fundamental asset. Supporting this view, Hoang and Antoncic (2003) explain that interpersonal and inter-organisational relationships are considered as the instrumental platform that facilitates access to a variety of resources, such as information and advice. Hoang and Antoncic (2003) also note that networks are not only beneficial to the start-up enterprise, but to entrepreneurs of all magnitudes, who continue to have significant reliance on networks for business information, advice and problem-solving, with certain contacts yielding multiple useful resources (Hoang & Antoncic, 2003).

Greve and Salaff (2003), describe the entrepreneur's social capital as the contacts that bring about successful outcomes and are an integral component of the entrepreneurial networks held. Greve and Salaff (2003, p. 2) indicate that while entrepreneurs generally require 'information, capital, skills and labour' to begin their business activities, in certain instances the entrepreneurs may not hold these required resources themselves, and often complement this deficit by accessing their social capital. Similarly, Burt's (1992) earlier findings suggest that contacts contribute to an entrepreneur's goals, inadvertently becoming constituents of the entrepreneur's social capital. The relationships between entrepreneurs and other individuals are influential in providing the resourceful information that is pivotal in the establishment and sustenance of a business (Greve & Salaff 2003).

This section has served to provide a background and overview to the meaning of networks and the significance thereof for the entrepreneur and for the firm. The discussion has introduced the view that networks can be relevant to both the individual entrepreneur as well as the firm. This leads to the next area of discussion, a comparison between the personal networks of the entrepreneur and the organisational networks of the firm.

2.2.2 Personal and Organisational Networks

Bruderl and Preisendorfer (1998) extend the view that two, divergent network approaches exist within the field of entrepreneurship. The authors indicate that one approach pertains to the personal network of entrepreneurs i.e. the individual relations of business founders, while the other relates specifically to the organisational network of businesses, i.e. the collective relations which transpire inter-organisations (Bruderl & Preisendorfer 1998; Dubini & Aldrich 1991; Uzzi 1996). O'Donnell *et al.* (2001) further suggest that the two principal categories of networks, inter-organisational networks and the personal networks of the entrepreneur have alternatively been considered as inter-organisational networks and social networks (Brown & Butler 1993; O'Donnell *et al.* 2001) or formal and informal networks (Johannisson 1986; O'Donnell *et al.* 2001).

The Personal Network Perspective

Bruderl and Preisendorfer (1998) disclose that the personal network perspective is more widely studied than the organisational network perspective. Johannisson (1988) describes the personal network of the entrepreneur as a most valuable asset, and a networking person as one who uses their personal network as the means by which information exchange and resources are extracted from the environmental setting. Bruderl and Preisendorfer (1998) suggest that the common idea of the personal network emanates from the view that entrepreneurship is a social role, ingrained within a 'social, political and cultural context' (Bruderl & Preisendorfer 1998, p. 214). The terms "personal network" and "social network" often appear in entrepreneurship literature. O'Donnell *et al.* (2001) suggests that these terms can be considered as 'roughly interchangeable' (O'Donnell *et al.* 2001, p. 752), and further suggests that an individual's

network may consist of people, who under certain conditions might be expected to provide specific services or support, or may expect the same to be reciprocated.

The Organisational Network Perspective

Researchers exploring companies operating in business markets, that are often but not exclusively entrepreneurial firms, have studied the inter-organisational network perspective. In assessing the organisational networks of businesses, the relation should first be established between the roles of the individuals operating the organisations, to the organisations themselves in order to be able to clearly ascertain what the organisation's networks are. O'Donnell *et al.* (2001) note that prior to the conception of inter-organisational networks, economists argued that resources could be obtained in one of two principal means: 'through the market mechanism or through a hierarchically arranged firm achieved through vertical integration' (O'Donnell *et al.* 2001, p. 750). To further elaborate on this description, a market mechanism is said to ensue when transactions are 'straight-forward, non-repetitive and require no transaction-specific investments' (O'Donnell *et al.* 2001, p. 750). Alternatively, when transactions are 'uncertain in outcome, recur frequently and require substantial transaction-specific investments' (O'Donnell *et al.* 2001, p. 750), these are likely to occur in hierarchically arranged firms. Granovetter (1985) asserts that individuals and institutions are constrained by on-going social relations, refuting the arguments by economists that individuals pursue 'rational self-interested behaviour that is affected minimally by social relations' (O'Donnell *et al.* 2001, p. 750).

Integration of Network Perspectives

Some researchers believe that the afore-mentioned network perspectives should not be treated separately. Johannisson *et al.* (1994) advocate that inter-personal and inter-organisational networks should not be separated, as the authors regard the entrepreneur as the central player within the firm, who personally integrates various social and business contacts within the business. In addition to this, O'Donnell *et al.* (2001) argue that 'although the term "personal" may precede "network", in various entrepreneurship research and commentary, the entrepreneurial network is taken to include both formal

and informal ties between individuals and organisations' (O'Donnell *et al.* 2001, p. 754). Hite and Hesterly (2001, p. 277) portray a level of resemblance between an entrepreneur's network and their firm's initial network. Hite and Hesterly (2001) explain that during the emerging stages of a firm's existence, the personal network of the entrepreneur is virtually synonymous with that of the firm's network. This is attributed to network ties initially existing on the interpersonal level. As a firm formalises, however, the interpersonal ties evolve into inter-organisational ties, which increase information and resource exchange relationships between organisational entities (Hite & Hesterly 2001). The authors describe the entrepreneur's role as that of resource co-ordinator and agent of the firm, who often extends his/her personal/social networks to the firm as their most valuable asset (Hite & Hesterly 2001).

Over the years, networks have either been categorized as "inter-organisational" or "personal/social". Several researchers have, however, opted for a definition that integrates aspects of both network approaches. This section has elaborated on the two key network perspectives discussed in entrepreneurship literature and has highlighted the overlap between the two network perspectives, suggesting that they are not mutually exclusive. Consistent with this view, this study establishes that, as the firm emerges, the personal networks of the entrepreneur are indeed aligned with that of the firm. Furthermore, once the firm evolves from the emergent to the early growth stage, a synchronised evolution of the network from strong ties to weak ties will result, attributed mainly to the dynamic and non-static nature of networks (Hite & Hesterly 2001). The section to follow discusses the value of networks.

2.2.3 The Value of Networks

Individual entrepreneurs and firms assemble networks and alliances mainly out of shared interests and common objectives. These newly formed networks and alliances subsequently create a level of interdependence (Gulati & Garguilio 1999). Several compounding factors escalate this level of interdependence, such as the need to share in the costs and inherent risks associated with any large-scale projects or technological development, the pursuit of resource specialization strategies, as well as the desire to

enter existing markets and the creation of new ones (Gulati & Garguilio 1999; Mariti & Smiley 1983).

In considering the personal networks of the entrepreneur, Watson (2007) describes networks as affording firm owners 'the ability to gain access to resources not within their control in a cost-effective manner' (Watson 2007, p. 852), while Jack (2010) suggests that the value of networks relates to 'the actual benefits and/or constraints associated with networks, the activity of networking and the process involved in their use creation and development' (Jack 2010, p. 123). This section examines the value of networks to firms and entrepreneurs alike, through investigating the motivating factors surrounding the key reasons why entrepreneurs and firms form networks; and further evaluates the benefits and costs associated with the activity of networking.

Hite and Hesterly (2001) indicate that in the early stages of a firm's evolution, firms tend to encounter three specific resource acquisition challenges: 'availability, access and uncertainty' (Hite & Hesterly 2001, p. 227). Resource *availability* pertains to the firm's ability to identify where vital resources are available and how they can be sourced. Once these resources have been identified, the next area of concentration is *access*, which involves the manner in which these necessary resources can be acquired. Hite and Hesterly (2001) highlight that new firms generally experience difficulty in acquiring the desired resources, even if they are able to identify willing resource providers, as the prevalent issue relates to the terms of exchange, and specifically the degree to which these terms are favourable for all concerned. Hite and Hesterly (2001, p. 278) state that *uncertainty* outlines the predictability of the conditions that surround the firm, specifically when considering its multi-dimensional nature. Hite and Hesterly (2001) illustrate that more established firms tend to be reluctant to exchange resources with new firms, because of their uncertain future outlook. These resource acquisition challenges vary, depending on the firm's development stage, and are essential in inciting the evolution of networks (Hite & Hesterly 2001).

Benefits of Networks

Entrepreneurship researchers investigating the field of networks have sought to illustrate the advantages associated with the creation and maintenance of networks. In evaluating the main benefits, information sharing is often cited as being the foremost benefit derived from networking (O'Donnell *et al.* 2001). Other benefits include an expansion of the entrepreneur's range of contacts through ensuing introductions to additional business associates, extended through recommendations from other contacts within the network (Birley 1985; Birley *et al.* 1991; Cromie 1994). 'Motivation, support and encouragement' (O'Donnell *et al.* 2001, p. 754) as well as self-confidence (Johannisson 1994; O'Donnell *et al.* 2001) are some of the more personal benefits that entrepreneurs are thought to receive from their respective networks. It should, however, be noted that the maintenance of network contacts requires a certain level of reciprocity from the entrepreneur who, while enjoying the benefits associated with being part of a network, is also required to exhibit appropriate reciprocity.

Costs of Networks

Zhao and Aram (1995) assert that entrepreneurs ought to be strategic when it comes to networking practices, because the cost of networking may ultimately be the time spent developing relationships. This essentially translates into lost time, which could perhaps have been better spent further nurturing other aspects of the firm's development.

Gulati and Garguilio (1999) suggest that the risk of exposure to opportunistic behaviour should also be taken into account when considering the costs associated with networking. The authors describe the 'moral hazard' (Gulati & Garguilio 1999, p. 1442) that firms and entrepreneurs potentially face when establishing new networks and alliances. Unpredictability in the behaviour by a partner could likely increase the cost to an organization. This could occur when the partner limits the contribution made to the organisation, or simply behaves opportunistically, by taking advantage of the relationship to utilize the resources or information in a manner that may be damaging to the organisation's interests (Gulati & Garguilio 1999). Elfring and Hulsink (2003) concur with this view by stating that the time spent on monitoring and bargaining over agreements,

are significantly reduced through the manifestation of strong ties, which discourage free-riding and reduce transaction costs. Transaction costs pertain to all costs incurred during the transfer of goods and services from one firm to another, or on a smaller scale, one individual to another (Premaratne 2002).

Gulati *et al.* (2000) indicate that transaction costs can be mitigated in several ways. Firstly, network ties, which are vital sources of referrals, allow prospective partners the ability to learn about each individual's capabilities, through conducting due diligence work. Vital information about one another's resources and capabilities is revealed transparently (Gulati *et al.* 2000). Secondly, networks have the ability to mitigate opportunism, as any devious behaviour will rapidly spread throughout the entire network to the detriment of one's reputation. Gulati *et al.* (2000) relay that networks create strong disincentives for opportunistic behaviour, because of the length of time it takes to build one's reputation, and the short amount of time the reputation can be destroyed by the information disseminated by the network.

The Significance of Trust within Network Relationships

Premaratne (2002) asserts that informal networks, consisting of strong ties, reduce transaction costs because of the trust entrenched within the relationships. Trust is the preeminent enabler when it comes to reducing negotiation costs and time, etc. (Bygrave & Minniti 2000; Staber 1996; Uzzi 1996). Furthermore, trust also assists in the reduction of transactional uncertainty, as well as the creation of opportunities for the exchange of goods and services (Premaratne 2002). Various authors argue that trust enables parties to believe that each will mutually partake in acceptable and predictable actions and depict trust as a requisite for alliances involving inter-dependence and task coordination (Das & Teng 1998; Gulati *et al.* 2000; Hoang & Antoncic 2003; Powell 1990; Uzzi 1997). In addition to this, trust benefits the depth and quality of the exchange relationship, particularly with regards to the exchange of information (Hite 2000; Hoang & Antoncic 2003; Lorenzoni & Lipparini 1999; Saxenian 1991).

2.2.4 Networks as Social Capital

Social capital is viewed as a set of resources embedded within relationships occurring between the entrepreneur and their network (Burt 1992; Loury 1977). These ensuing relationships are described as 'social structures' and the resultant interactions as 'social processes' (Hansen 1995, p. 7). Other research views extended on this topic portray a broader definition of social capital, as not only including social relationships, but as also incorporating their intrinsic norms and values (Coleman 1990; Portes & Sensenbrenner 1993; Putnam 1995). Aldrich and Martinez (2001) suggest that the key value in network-based social relationships pertains to the quantity of resources possessed by the parties. It is however noted that the positioning of the entrepreneur within the larger network has a direct impact on their ability to access these desired resources (Aldrich & Martinez 2001; Burt 1992).

During the formation of a new venture, the entrepreneur faces innumerable resource acquisition challenges. As a result of this, entrepreneurs often seek out external entities for support in overcoming the deficit experienced when trying to access critical resources. These external entities are the ties that constitute the entrepreneur's social capital (Smith & Lohrke 2008), representing the fundamental attributes of social relationships. In essence, social capital is an integral component of networks, through serving as both a product and an enabler of their continued development (Anderson & Jack 2002). In addition to providing economic resources that improve the likelihood of a venture's success, Smith and Lohrke (2008, p.316) note the significance of social capital as enabling access to 'useful, reliable, exclusive and less redundant information'.

Tsai and Ghoshal (1998) contend that social capital encompasses aspects such as social ties, trusting relations and value systems, which are all considered as influential in facilitating the actions of individuals located within a specific social context. Aldrich and Martinez (2001) claim that the resources generated may include 'knowledge, capital, clients and access to suppliers' (Aldrich & Martinez 2001, p. 47). Social capital may not always be accumulated with a particular purpose, but is essential in enabling individuals to access resources that are generally unattainable.

2.2.5 Online Social Networking

At this point in the study, it is useful to include a discussion on the growing popularity of online social networking. Online social networks provide a technological means to maintaining the existing relationships within one's social sphere and, in most instances, also the means for the development of new relationships. The rapid development of online social networking sites and their increasing popularity amongst all generations is confirmation that there is extensive transformation of social networks. This discussion evaluates how online sites function, the principles behind these online sites and the impact they have on social/personal networks.

Since their inception and introduction into mainstream cyberspace, social networking sites (SNSs) have attracted a wide array of individual users and subscribers (Boyd & Ellison 2008). The authors define SNSs as 'a web-based service that allows individuals to construct a public or semi-public profile within the bounded system' (Boyd & Ellison 2008, p. 211). To this end, users can manage a directory of other users, with whom they share a connection. Users may view and navigate through a personal list of connections, as well as those connections made by others within the SNS. Social Networking Sites such as MySpace, Facebook, LinkedIn, Bebo and Cyworld, to name a few, have attracted millions of users, many of whom have integrated these sites into their daily practices. These SNSs accommodate a wide-array of interests and practices and intermittently form and discontinue on an *ad hoc* basis generally depending on a specific need or interest (Barker 1999).

While most sites allow the user to maintain existing social networks, other sites allow users to make new connections (Boyd & Ellison 2008, p. 210). Social networking media therefore provide an alternative means by which built environment professionals can enhance the relations between their respective networks, through enabling communication channels.

2.3 Entrepreneurship Theory

Entrepreneurship has been theorized about for centuries, with the literature reflecting its evolution through the differing schools of thought that have emerged over time. The term 'entrepreneurship' has been applied to (-) and used within the business sphere for over two centuries, with its meaning having transformed over the years. Schumpeter, Weber, Knight and other theorists have related entrepreneurship to innovation. Schumpeter (1934; 1950) states that entrepreneurs engage in an activity referred to as 'creative destruction', where existing methods are rendered obsolete through the successful introduction and implementation of innovations.

The origin of entrepreneurship is believed to have emerged from a paradox in the nineteenth century (Sawyer, 1958). This paradox of entrepreneurial studies emerged during a period when industrial capitalism was flourishing, a period during which the study of economics was also taking on its modern form. Cantillion presented the role of the entrepreneur and their importance to economic development (Fayolle 2007). 'Cantillion's entrepreneur takes risks insofar as he or she firmly commits him- or her- self towards a third party, without being certain of the expected outcome' (Fayolle 2007, p. 30). Filion (1997) states that, entrepreneurs are above all else risk-takers who invest their own money and co-ordinate resources in order to produce goods. Their mandate is to 'create and develop economic activities for their own profit' (Filion 1997, p. 3). In the century following from Cantillion (1680 – 1734) to Say (1767 – 1832), the entrepreneur's central role was thought to encompass 'the overseeing of -, combining and committing of resources, under conditions of uncertainty' (Sawyer 1958, p. 434). Knight, an American theorist, gave specific focus to understanding the formal economics upon which the entrepreneur, as bearer of the uncertainties prevalent in the capitalist process, was prone to succumbing (Sawyer, 1958). Knight (1921) discusses the relation of the entrepreneur to uncertainty, where the opportunities arise out of the imperfections experienced within the market.

Schumpeter has played an invaluable role in providing insight into entrepreneurship research, and has been instrumental in the establishment of the fundamentals within the

entrepreneurship theory framework. Filion (1997) catapults Schumpeter to the status of 'Father of Entrepreneurship as a research field' (Filion 1997). Schumpeter's entrepreneur is above all else an innovator and an actor of change:

The essence of entrepreneurship lies in the perception and exploitation of new opportunities and resources in the corporate world... It always has to do with putting national resources to use in that they are withdrawn from their usual application and subjected to new combinations (Schumpeter 1928, p.483).

The role of the entrepreneur has, therefore, been seen as that of risk-taker and innovator, as one who exploits new product combinations. Thomas and Mueller (2000) discuss that both Cantillon [circa 1700] and Schumpeter (1934) attribute the economic development and vitality of a country to increased rates of entrepreneurship. Another important aspect originated from the work of Weber (1904), which was later elaborated upon by McClelland (1961), who posited that 'the abundance of individual entrepreneurs is a key supply condition leading to economic success' (Thomas & Mueller, 2000, p. 288).

Theorists have emerged with diverging views regarding entrepreneurship. Though these theories have existed for centuries, they represent the fundamental framework upon which the current study has been based. The sub-sections to follow observe networks in relation to entrepreneurship, by describing the role that networks play within the entrepreneurial process and also discuss and define entrepreneurial networks as considered in the current study.

2.3.1 The Role of Networks within the Entrepreneurial Process

Entrepreneurship describes one's ability to combine limited resources in innovative ways, enabling one to respond to opportunities by tapping into niche markets (Driver *et al.* 2001). The defining characteristics of an entrepreneur relates to individuals who realise new opportunities, who are 'persistent, passionate, adaptable and able to take risks' (Driver *et al.* 2001, p. 6). Entrepreneurs identify opportunities, acquire the essential resources and organize all these variables into a venture that offers something new or improved to the market (Driver *et al.* 2001, p. 7). The role of an entrepreneur, according

to Bruderl and Preisendorfer (1998), is not that of an isolated and autonomous decision-maker, but an actor participating within a specific social structure.

The entrepreneurial process is centred on an opportunity-driven, creative and resource-efficient stance, propelled by the entrepreneur or the entrepreneurial team (Timmons, 1999). Shane and Venkatraman (2000) argue that the entrepreneurial process encompasses distinctive activities such as opportunity-identification and resource-mobilization, essentially culminating in the creation of an organization. Kodithuwakku and Rosa (2002) describe the entrepreneurial process as one that provides an alternative manner of efficiently managing resources, and does not conform to orthodox management practices.

Researchers studying the process of entrepreneurship consider the network construct as being a constituent of this process (See for example: Aldrich & Zimmer 1986; Birley *et al.* 1989; Blackburn *et al.* 1990; Curran & Blackburn 1993; Dodd 1997; Donckels & Lambrecht 1995; Gilmore & Carson 1999; Granovetter 1985; Johannisson, 1986; Joyce *et al.* 1995). Aldrich and Zimmer (1986) describe entrepreneurial activity as being channelled, facilitated, and possibly even constrained by the individual positions within a network. Zhao and Aram (1995) assert that networking is directly associated with the notion of entrepreneurship, as it affords owners the ability to gain access to resources not under their control in a cost effective manner.

This section has briefly described the defining characteristics of an entrepreneur, the process of entrepreneurship and how the network construct is intrinsically related to this process. The section to follow briefly defines entrepreneurial networks and describes the entrepreneurial network composition considered in this current study.

2.3.2 Entrepreneurial Networks

Entrepreneurial networks are the relationships that entrepreneurs build in order to obtain essential resources (Premaratne 2002). These networks are formed with the intention of optimizing the efficacy of the network members' business activities. Entrepreneurial networks are discussed by different authors, all with varying

interpretations of their composition. Birley (1985) categorises entrepreneurial networks into formal and informal networks. Formal networks (professional networks) are describes as structured relations associated with professionals or institutions such as, banks, accountants, lawyers, the local Chamber of Commerce, etc. Birley (1985) considers informal networks (social networks) as established relations that the entrepreneur would have with family members, close friends, previous colleagues and employers, as well as social acquaintances.

Watson (2007) concurs with Granovetter (1985) in highlighting the particular importance that formal networks, through weak ties, add to an entrepreneur's social capital. Watson (2007) illustrates that weak ties form conduits between the different actors constituting the network, to their mutual benefit. These results are supported by the earlier findings (Cooper *et al.* 1988; Duchesneau & Gartner 1990; Potts 1977), which assert that business owners should strive to form relationships with "outsiders" such as professional advisors, as these individuals can provide the objectivity and detachment required to diagnose a problem or to objectively assess the firm's prospects.

This current study considers entrepreneurial networks as comprising of formal and informal networks, therefore supporting the authors' (Birley 1985; Granovetter 1985; Watson 2007) assessments of the composition of entrepreneurial networks. The discussion which follows, examines the above-stated entrepreneurial network composition, through describing the three key variables incorporated into the formal and informal network discussion: strong and weak ties, network range and network intensity.

2.3.3 The Composition of Entrepreneurial Networks

Networks are recognised as the opportunity structures through which critical information, resources and social capital are made available to entrepreneurs (Aldrich & Zimmer 1986). They offer the means to identify and exploit favourable opportunities and O'Donnell *et al.* (2001, p. 752) depict them as 'a series of direct and indirect ties from one actor to a collection of others'. Researchers within the field of networks highlight the need for network analysis to consider both the structure of the network and the nature of the interactions between the actors constituting the network (Burt 1992; Granovetter

1973; 1985; Mitchell 1973; O'Donnell *et al.* 2001; Olkkonen *et al.* 2000; Powell 1990; Spekman 1996). There are varying interpretations on the structural composition of networks. These mild variations are made evident when considering the constituting variables encompassed within them.

Low and Abrahamson (1997, p 442) identify four, commonly examined personal network compositions and illustrate them as follows:

- *Size* represents the number of relationships within the network contact base.
- *Strength of ties* indicates the strength of the relationships between the individual entrepreneur and their network. Stronger and closer relations amongst individuals within a network are likely to signify stronger ties, while more distant relations are prevalent, an increased likelihood of weak ties exist.
- *Density* depicts the number of relationships within the network as a percentage of all existing relationships.
- *Range* represents the diversity of the network relationships.

The current study, however, is based on the structural network composition illustrated by Watson (2007), who distinguishes between two distinct network dimensions, i.e. *formal* and *informal* networks. Watson (2007) opts to illustrate the network composition as encompassing three key variables: network ties, network range and network intensity. Through this assertion, Watson (2007) indicates that the composition of formal networks typically comprises weak ties, whilst informal networks are generally made up of strong ties.

The first component of his discussion signifies one of the three portrayed variables, which are the materializing network relationships depicted as *network ties*. Watson (2007) indicates that these network relationships comprise both strong and weak ties, depending on their nature, i.e. formal or informal. *Network range* is the second variable, and it represents the size of the number of relationships within a network contact base (Low & Abrahamson 1997). Watson (2007) purports that network range ultimately

depends on the key objectives of the entrepreneur, where the primary objective is rapid growth, then the entrepreneur is advised to adopt a broad range of networks, which is likely to result in more weak ties and, therefore, the dissemination of more information, whereas if a firm is newly established, Watson (2007) proposes that the entrepreneur might receive increased assistance from a narrower set of networks. The third variable, *network intensity*, depicts the frequency of communication and highlights the view that in the instance an entrepreneur pursues a broad range of networks; this may result in the infrequent contact of the network contact-base, while alternatively a narrower range enables the network to be accessed with more intensity (Watson 2007).

Researchers on the subject of networks consider varying characteristics as structural components of networks. While the above-described network compositions may differ contextually, they also convey distinct overlapping similarities, particularly in describing network relationships as illustrated by a series of strong and weak ties. Low and Abrahamson (1997) suggest that the structural network compositions should not be viewed in an isolated manner as they are empirically related. This current study bases its analysis on Watson's (2007) three-variable analysis, as the author's study incorporates the prevalent network literature on network compositions in a clear, comprehensive and succinct manner. The section to follow continues this discussion by investigating key literature related to network ties, network range and network intensity.

2.3.3.1 Network Ties

Watson (2007) elaborates on the dichotomy of entrepreneurial networks, categorized as either formal or informal. Formal networks are considered to be those external and detached from the entrepreneur, perhaps constituting a part of the professional ensemble that the entrepreneur refers to for external information, assistance and advice. Informal networks are regarded as having a close, strong and personal relationship to the entrepreneur, where this group mainly consists of friends and family. According to Watson (2007), these two distinct network groups, distinguished by the strength of their relationship (ties) to the entrepreneur, advance the observation of two key sub-groups, strong ties and weak ties.

Watson (2007) contends that formal networks generally comprise weaker ties, whereas informal networks typically consist of stronger ties, which are more easily available to the individual, further extending the view by Granovetter's (1982) contention that weak ties are likely to result in the transfer of more information than strong ties. Granovetter (1982, p. 202) states that 'without weak ties the flow of information is not disseminated beyond the clique'. Granovetter (1982) postulates that weak ties provide individuals with access to information and resources, beyond those usually available within their own social circles. Granovetter (1982) does acknowledge the significance of strong ties, by depicting strong ties as being typically more easily available and useful to individuals who find themselves in 'insecure positions' (Granovetter 1982, p. 1361). In this position, individuals are likely to develop strong ties in order to protect themselves against any unforeseeable situations and to further reduce any impending uncertainties. Krackhardt (1992) critiques Granovetter's (1982) proposition, but acknowledges that weak ties are essential to the distribution of key information to disparate parts of the social system, by acting as a local bridge. Krackhardt (1992, p. 216) asserts that 'strong ties bond similar people to each other, and these similar people cluster together such that they are mutually connected'. The following discussion further examines the composition of strong ties and weak ties within a single network structure.

The Composition of Strong Ties and Weak Ties within a Network

There is a degree of unanimity in the literature about the general importance of networks for firms in the developmental stages of the organisational life cycle. There is, however, considerably less agreement in determining which network composition is most advantageous for firms in the developmental stages (Hite & Hesterly 2001). The structure of networks may vary in composition from weak ties (loose ties) to strong ties (closely-knit ties) within business (Elfring & Hulsink 2003). Low and Abrahamson (1997, p. 453) describe networks as a continuum ranging from weak ties to strong ties, where the weak tie networks are 'large, sparse and diverse with infrequent contacts of low intensity'. Contrary to this view, strong ties are described as, 'small, dense and homogenous, with frequent contacts of high intensity' (Low &

Abrahamson, 1997, p. 453). The effect of a particular mix between strong and weak ties in entrepreneurial network research enables an analysis of these distinct support networks, in terms of both the depth and width of the resultant relationships (Low & Abrahamson 1997).

Questions have emerged that have sought to establish which of these two tie strengths yields the most optimal network composition. Authors describe an “optimal mix” (Elfring & Hulsink 2003; Hite & Hesterly 2001; Low & Abrahamson 1997; Uzzi 1996; 1997) that the entrepreneur should strive to maintain, acknowledging the merits of integrating both strong and weak ties within a network. Elfring and Hulsink (2003, p. 410) illustrate the mix that both weak and strong ties each contribute to the entrepreneurial process. Strong ties are said to be associated with the ‘exchange of fine-grained information and tacit knowledge, trust-based governance, and resource co-option’, whereas weak ties are beneficial in enabling access to ‘novel information’ through the linkages they offer to the ‘divergent regimes of the network’ (Elfring & Hulsink 2003, p. 410). Therefore, it is aptly concluded that a mix between strong and weak ties is advantageous for different purposes (Elfring & Hulsink 2003).

The Measure of Tie Strength

Tie strength has been measured in several diverse manners. According to Krackhardt (1992), some authors measure strong ties as ‘reciprocated nominations’, weak ties as ‘unreciprocated nominations’, and no ties as ‘no nominations’ (Krackhardt 1992, p. 217) Other tie measures have included the following: ‘recency of contact’; the use of labels such as ‘friend, relative or neighbour’ to illustrate strong ties (Erickson & Yancey 1980; Lin *et al.* 1981; Krackhardt 1992, p. 217) and frequency of interaction (Granovetter 1973; Krackhardt 1992). Larson and Starr (1993) reinforce this view by stating that emerging firms tend to leverage the entrepreneurs’ ties with family members and friends, in order to gain the key resources required to establish the firm’s viability. Granovetter (1982) illustrates four identifying properties for a strong tie by stating that ‘the strength of a tie is a (probably linear) combination of the

amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services characterizing the tie' (Granovetter 1973, p. 1361).

Zhao and Aram (1995) add a new dimension to the above discussion, by stating that the structural composition of networks can also be understood in terms of range and intensity. In this case, the network range represents the size of the entrepreneur's database of contacts and the network intensity makes reference to the frequency in which firms access their networks. The section to follow provides a brief overview to network range and network intensity.

2.3.3.2 *Network Range and Network Intensity*

Watson (2007) provides the main reference for this topic by detailing the relative benefits of accessing a broad range of networks infrequently, as compared to accessing a narrower set of networks more intensely. This has been related to the primary performance objectives of the firm. Watson (2007) indicates that a broad range of networks is likely to comprise a higher component of weak ties, which results in infrequent contact. This is juxtaposed against a narrower network range, which likely comprises a higher number of strong ties, resulting in more frequent contact. Watson (2007) hypothesises that network intensity and network range share an inverse relationship. In discussing network intensity, Granovetter (1973) gives an example of the difference in the frequency of contact (network intensity) between weak ties and strong ties. Frequency of contact and interaction within weak ties generally occurs 'more than once per year and less than twice per week', while strong ties interact 'at least twice per week' (Granovetter 1973, p. 1371).

This study considers the *change* that has occurred in the network range and intensity of the built environment professionals' entrepreneurial network, from SME firm inception to the current operating standpoint, and has adopted a less stringent outlook in its observation of network intensity to that offered by Granovetter (1973).

2.4 An Overview of the South African Built Environment

Kohler and Moffat (2003) describe the built environment as the foundation through which mass and energy flow and for which man is solely responsible. This industry uses a significant amount of a country's physical and cultural resources, symbolising both a resource and a user in modern society (Kohler & Moffat 2003). The built environment is vital in providing expression, meaning and identity to the individual relations with the surrounding environment, and can be regarded as a beneficial symbol for various political, social and cultural elements (Knox & Ozolins 2000).

Knox and Ozolins (2000) view architecture and urban design as focal contributors to the character of the built environment. However, much of the decision-making pertaining to various aspects of the structure, the positioning and locality, are decisions that are concluded by professionals such as property developers and policy makers. The design and production of the built environment is intricate and in certain instances can be laborious. It involves decisions from a diverse group of stakeholders and form-givers such as landowners, financiers, property developers, builders, policy makers and bureaucratic officials as well as members of the design professions. Knox and Ozolins (2000, p. 5) describe the built environment as a 'culmination of land development processes' that involves key actors, who share relationships with one another and are all 'inter-connected in several different ways'.

In accordance with the South African Built Environment Professions Bill ratified by the Minister of Public Works and published in the Government Gazette in May 2008, the built environment is defined as the 'physical world, intentionally created through science and technology for the benefit of mankind' (Built Environment Professions Bill 2008, p. 4). McKechnie (2008) views the nature of this definition as being too broad, mainly because it is construed to include anything designed, built or manufactured. McKechnie (2008) states that science and technology, although varying in complexity levels, is the main engine behind such processes.

In considering the professions falling within the ambit of the built environment, the Bill proposes that a built environment profession is one which falls under the directorate of a professional board established in terms of section 15 of the Bill and where all the professions are regulated by this legislation under the auspices of the Department of Public Works (McKechnie 2008). The professions included within the scope and definition of the built environment consist of 'Architecture, Quantity Surveying, Construction Management and related Project Management, Building Science, Landscape Architecture, some sub-disciplines of Engineering such as Civil Engineering, Town and Urban Planning, Land Surveying and other construction-related fields' (McKechnie 2008).

The current study extends a definition of the members of the South African built environment as constituting the professional team in any construction development project. The professional fields considered in this study include; Quantity Surveying, Architecture, Project Management, Structural Engineering and Property Development.

2.5 The Organisational Life Cycle

Over the decades, organisational theorists have tried to conceptualise models that capture the 'life of organisations' (Lester *et al.* 2008, p. 314). These models, although many and varied, address the identifiable stages and specific life cycle characteristics of the firm. Lester *et al.* (2008) consider organisation development to be a linear process, where organisations are 'born, grow and develop, and later die or renew themselves' (Lester *et al.* 2008, p. 314).

Low and Abrahamson (1997) state that the organisational life cycle perspective extends the view that firms evolve through progressive stages, and that industries and organisations evolve in a predictable manner along their trajectory. Low and Abrahamson (1997) suggest three main stages of the organisational life cycle, emergence, growth and maturity. The authors illustrate that the period of emergence is discernable by its initial phase of slow growth; the expansion phase is noticeable by the rapidly occurring growth, which is also marked by an increase in competition; and is followed by a period of maturation, characterised by slower growth and stability. Hite and Hesterly (2001) describe the organisational life cycle as being useful in framing the general processes of

firm evolution and continuous change over time. The authors state that each stage of the life cycle represents a unique strategic context. Hite and Hesterly (2001, p. 276) present four distinct stages of the organisational life cycle:

Emergence

This stage of firm development commences when the firm is legally created (Gartner *et al.* 1992; Gartner & Brush 1999). It is characterized by high degrees of uncertainty related specifically to resources, routines, products and the environment. Firms in this stage are usually subject to liabilities of both newness and smallness. The start-up firm usually has low degrees of legitimacy and reputation, and would need to gain access to external resources and expertise that cannot be internally generated. At this stage, the emerging firm is dependent upon external network sources that are essential in providing much needed resources (Hite & Hesterly 2001).

Early Growth

This stage is characterized as the point at which the firm makes clear strategic decisions to intentionally grow. This phase of firm development requires a broader scope of resources than previously needed. There is still some uncertainty, as the firm continues to encounter increased environmental uncertainty. At this stage, however, firms are likely to have experienced a build-up in reputation and an accumulation of resources (Hite & Hesterly 2001).

Later Growth

This is a stage marked by a period of high growth, as an increase in both sales and employment is likely to result. The main challenges experienced by the firm at this point, pertain to achieving performance targets, while still maintaining profitability. With pressures to attain profitability, firms must carefully balance profit against future growth. It is in this period that the firm experiences an almost constant state of change, as roles, responsibilities and policies of the organization are defined (Kazanjian & Drazin 1989). During this phase the organisation may become decentralized or at least partially, divisionalized (Churchill & Lewis 1983). While the

owner may remain central to the decision-making, there is an increased sense of hierarchy throughout this stage. There is also a move to functional specialization and more professionally trained and experienced employees (Kazanjian & Drazin 1989).

Maturity

Firms in this stage 'have arrived' (Churchill & Lewis 1983, p. 40). They have the advantage of size, financial resources to engage in operational and strategic planning. At this point the management is decentralized, adequately staffed and experienced. Business systems are extensive and well-developed. The owner and the firm are more divested, both financially and operationally.

Decline/Death

This stage is characterised by a decline in growth, brought about by a lack of innovative decision-making and the avoidance of risk.

2.5.1 Implementing the Organisational Life Cycle Stages to the Current Study

Hite and Hesterly (2001) focus their study on firms operating within the emergence and early growth stages of the organisational life cycle, as these two stages highlight the tension between preferred network compositions; namely, whether networks characterized by strong ties (embeddedness and cohesion), or those comprising weak ties (structural holes) are the most likely to confer the required benefits. The authors, however, have not classified these two distinct stages of firm development by age, suggesting that the characteristics and challenges of each stage of a firm's development can be more useful to identify the stages and boundaries of the entrepreneurial process, than specific timeframes (Hite & Hesterly 2001).

While challenges exist in adopting the organisational life cycle stage approach, the main challenge is in identifying which stage a firm is currently operating in, as well as the boundaries and transition points between the stages (Hite & Hesterly 2001). Timeframes are particularly useful in this regard and have been applied within this current study. Klyver and Terjesen (2007) differentiate between firms that are emergent, operating for less than 42 months (young) or operating for more than 42 months (established),

whereas Lester *et al.* (2008), more specifically, note that emergent firms relate to those that are aged between 0 and 3 months and early growth firms as those aged between 3 months and 42 months, determined from the date of business registration (Gartner *et al.* 1992; Gartner & Brush 1999). Orford *et al.* (2004, p. 5) regard 'start-ups/emerging firms as businesses which have paid wages and salaries for less than 3 months and early growth firms as those that have paid wages and salaries for 3 to 42 months'. From the literature considered, emergent firms refer to those aged between 0 and 3 months and early growth firms as those aged between 3 and 42 months. This current study determines firm age from the date of business registration (Gartner *et al.* 1992; Gartner & Brush 1999; Lester *et al.* 2008).

2.6 The Simultaneous Evolution of Firms and Entrepreneurial Networks

In entrepreneurship research, organisational life cycles are used to illustrate how firms evolve through progressive stages. Rowley *et al.* (2000) as well as Hite and Hesterly (2001) claim that as firms develop from emergence to early growth, their transforming resource needs require an evolution in the network structure. Entrepreneurs are fundamentally regarded as resource co-ordinators and agents of the firm, who offer their personal networks as their 'most valuable asset' (Aldrich, Rosen & Woodward 1987; Hite 1999; Larson & Star 1993; Saxenian 1990; Hite & Hesterly 2001, p. 278).

Hite and Hesterly (2001) argue that the personal social network of the entrepreneur is virtually synonymous with the firm's network during the emerging stages of its development, as initially networks exist on the inter-personal level (Bhide 1999; Hite & Hesterly 2001; Zaheer *et al.* 1998). However, as the firm formalizes, the inter-personal network ties, 'through routines and procedures' (Hite & Hesterly 2001, p. 278), evolve to become inter-organisational ties that provide beneficial resource exchange relationships between organisational entities (Bhide, 1999; Galaskiewicz & Zaheer 1999; Larson & Starr, 1993; Zaheer *et al.* 1998; Hite & Hesterly 2001, p. 278). The changing resource needs act as a catalyst in the resulting shift in networks. According to Hite and Hesterly (2001), this network dynamism enables firms to strategically adjust their networks and acquire the resources essential in ensuring successful emergence and growth.

This dissertation acknowledges Hite and Hesterly's (2001) study, which while recognising the full spectrum of the life cycle stages, focuses on the emergence and early growth stages. These stages most aptly illustrate the change in the structural properties of networks, which as depicted, comprise both strong and weak ties.

2.7 Chapter Summary

This chapter has explored the various components of the themes generated by the current study. The discussion began broadly by evaluating networking behaviour, which described the background to network research and investigated the meaning and value of networks within the field of entrepreneurship. The discussion reviewed the theory and processes associated with the field of entrepreneurship and also clarified the role of networks within the entrepreneurship process. Thereafter, an overview of the South African built environment was provided, which specified the professions considered in this current study. An assessment of the varying and distinct stages of the organisational life cycle was undertaken, upon which the stages relevant to the current study were revealed. The discussion concluded with an account of the simultaneous evolution of firm development and network composition. Chapter 3 presents the research methodology employed in this dissertation, as well as the techniques and research method used.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The research process utilizes objective methods and procedures in order to create empirically tested knowledge (Welman & Kruger 2001). The key purpose of this chapter is to illustrate the research methodology employed in this dissertation through presenting the techniques applied and the methods used in obtaining the findings described in Chapter 4. In conducting the current study, semi-structured interviews were held with South African built environment professionals, in order to gain insight into their networking behaviour, their SME firm development trajectory, and the resultant evolution of their entrepreneurial network composition. The chapter begins with a brief discussion on research paradigms and methodologies.

3.2 Philosophical Perspectives: Research Paradigms and Methodologies

The notion of a research paradigm is useful in offering an understanding of how scientific research within a specific field is conducted, and also depicts how knowledge claims can gain credibility (Kazanchi & Munkvold 2002). Phillips (1987) asserts that a scientist functions within a theoretical framework or a paradigm, and states that this is pivotal in determining 'the problems that are regarded as crucial to the study at hand, the manner in which these problems are to be conceptualized, the appropriate methods of inquiry and the relevant standards of judgement, etc.' (Phillips 1987, p. 205). There is consensus among philosophy of science authors (e.g. Burrell & Morgan 1979; Hunt 1994; Kazanchi & Munkvold 2002; Kuhn 1962; Phillips 1987) that the term 'paradigm', tends to comprise three key constituents, namely: ontology; epistemology and methodology. These three constituents are briefly described below:

Ontology

Prior to undertaking the examination of any meaningful research topic, it is beneficial for researchers to understand the basic assumptions related to the nature of this world and the perceptions of those who live in it. Ontology is described as the theory or study of existence, a vision of the world in its truest form, a coherent set of

assumptions about how the world really operates (Gerring 2004). In the discussion extended by Kazanchi and Munkvold (2005), the authors indicate that the ontological assumptions within a paradigm, quintessentially characterize the nature of reality. As a direct consequence of this inherent all-encompassing character and ambiguity, ontology can neither be proved nor disproved (Gerring, 2004).

Epistemology

Epistemology is a term broadly pertaining to the theory of knowledge. It encapsulates the nature of this knowledge, its scope and also provides a clear set of criteria for evaluating knowledge claims as well as establishing whether these claims are indeed warranted (Kazanchi & Munkvold 2002). Burrell and Morgan (1979) describe epistemology as 'assumptions made with reference to the grounds and forms of knowledge, relating specifically to how one might begin to understand the world and communicate this as knowledge to fellow human beings' (Burrell & Morgan 1979, p. 4). Klein *et al.* (1991) relate epistemology to the nature of human knowledge and the understanding that this knowledge can possibly be acquired through different types of research as well as the appropriateness of the methods of investigation undertaken. A pertinent question relates to how this knowledge is best transferred: Is it capable of being transmitted or should its acquisition be through an individual's first-hand experience? This is discussed further in the section to follow.

Methodology

Kazanchi and Munkvold (2002) describe methodology as a procedure whereby knowledge is generated, while Rowlands (2005) views it as the means by which a phenomenon is studied. The choice in methodological approach should be significantly influenced by the nature of the research problem, and determined by how one might go about answering the posed research questions. Trauth (2001) states that, 'what one wants to learn determines how one should go about learning it' (Trauth 2001, p. 4). Hudson and Ozanne (1988) claim that methodology not only includes data-gathering techniques, but also comprises the research design setting, subject analysis, reporting, etc.

Figure 3.1 below represents the hierarchy for analysing assumptions relating to the nature of social science (Burrell & Morgan 1979), where ‘the higher-level assumptions define the possible scope of the assumptions at lower levels’ (Kazanchi & Munkvold 2002, p.2). Figure 3.1 also illustrates the major dichotomies in ‘soft’ versus ‘hard’ research (Kazanchi & Munkvold 2002).

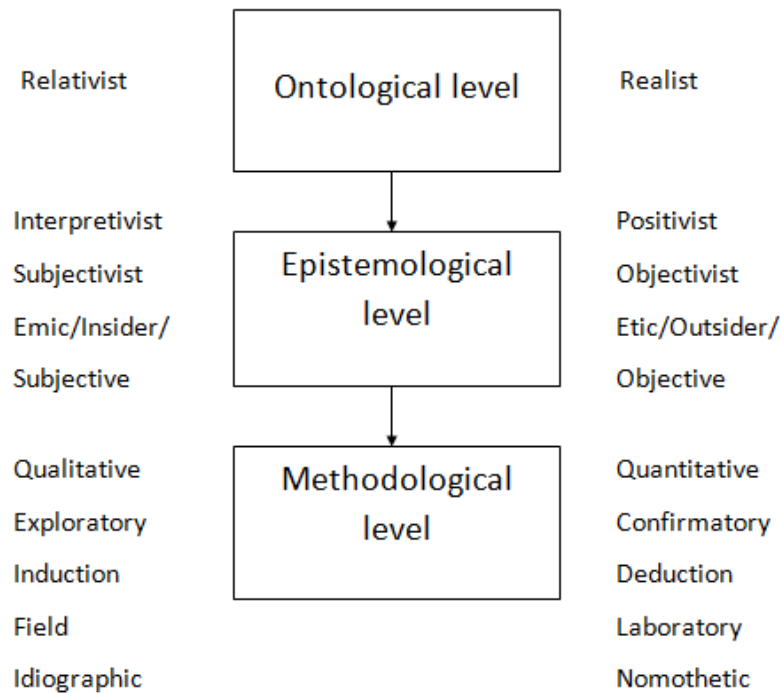


Figure 3.1 Dimensional Hierarchy and the Related Dichotomies (Source: Kazanchi and Munkvold 2002, p.3)

In their analysis, Kazanchi and Munkvold (2002) include a fourth tier of this dimensional hierarchy called the axiological level. Kazanchi and Munkvold (2002, p. 3) suggest that this level represents the ‘dichotomy between rigor and relevance’. The authors discuss that rigor and relevance should not be seen as ‘conflicting goals, as relevance does not imply that the research needs to be carried out in a less rigorous fashion’ (Kazanchi & Munkvold 2002 p. 3). Although the axiological level has not been included in this illustration, it has been pervasively evaluated in literature pertaining to research

philosophies. The discussion to follow expands upon the three dominant research strategies, namely Positivism, Interpretivism and Criticism. This elaboration provides insight on the chosen research strategy adopted by this study.

3.2.1 The Positivist Research Strategy

Ontologically, a positivist outlook is one which presumes a 'naive' or a 'minimal realism' stance (Kazanchi & Munkvold 2002, p. 3). It encapsulates the belief that 'only observable things are real and worthy of study' (Kazanchi & Munkvold 2002, p. 3), where social reality is regarded as objective and testable. Epistemologically, positivism asserts that any knowledge claim or scientific reasoning should be deduced by means of a 'sensory experience' (Kazanchi & Munkvold 2002, p. 3).

A positivist epistemology is one where the researcher adds to an existing body of knowledge by acting as a distant observer, gathering quantitative data and observing the object of study through a deductive method of reasoning, which works from the more general to the more specific (Kerlinger 1973). Inductive reasoning essentially works in inverse to deductive reasoning; conclusions are based on a defined set of premises and the detection of patterns and regularities (Burney, 2008). Its nature is more open-ended and exploratory. The current study has adopted an inductive method of reasoning.

Quantitative and Qualitative Research Methodologies

Quantitative and qualitative research methodologies are commonly used in the collection of data. A quantitative research methodology tends towards a positivist stance, described above. Creswell (1994) purports that this research methodology attempts to isolate variables and measure a number of dependent variables against an independent variable. Kerlinger (1986, p. 10) defines quantitative research as the 'systematic, controlled, empirical, and critical investigation of natural phenomena, guided by theory and hypotheses about the presumed relations among such phenomena'. The role of the researcher within quantitative research is that of a distant objective observer, who neither influences nor participates in the study being conducted (Creswell 1994). In contrast, a qualitative research methodology allows the researcher to deduce more about a situation, by studying the observations embedded within the research, as

opposed to experimental measurements. This essentially enables the researcher to immerse themselves in the research collection process through active involvement and participation (Creswell 1994). The discussion on qualitative research is continued in the section to follow.

3.2.2 The Post-positivist Research Strategy

The main argument delineating the post-positivist epistemology is that social reality stems directly from the individual researcher's own perspectives and interpretation in accordance with their ideological position(s). This epistemology, therefore, argues that knowledge is personally experienced as opposed to being externally acquired.

A post-positivist epistemology does not identify with generalised explanations, nor does it make predictions. It, instead, relies on interpretation and the conveyance of understanding in specific situations. Post-positivist philosophers consider it a fallacy for a researcher to adopt the stance of a completely detached observer (Cohen *et al.* 2000).

Qualitative methodology can adopt either a positivist or a post-positivist epistemology. Bryman (1984) discusses that qualitative research reflects a naturalistic epistemology, which challenges the view that science is the only manner in which factual knowledge about the social reality of the world can be produced. Orlikowski and Baroudi (1991) differentiate post-positivism into two defined research strategies, namely Interpretive and Critical. The discussion to follow delves into a discussion on what the two aforementioned research strategies entail, and also briefly outlines their divergent perspectives.

Interpretive/Constructive Research Strategy

An interpretive/constructive study focuses mainly on human interaction, where interpretive researchers attempt to understand phenomena by gaining access to the meanings that participants assign to them (Rowlands 2005). Kazanchi and Munkvold (2005) relate interpretivism to the human experience and social reality as 'relative to the observer' (Kazanchi & Munkvold 2002, p. 4).

Critical Research Strategy

Myers (1997) indicates that critical theory extends a critique of the prevailing social conditions. This research paradigm considers the complex relationships which occur between human interest, knowledge, power as well as forms of social control. While there are similarities between critical theory and the interpretive/constructive research paradigms, the key distinction is that an interpretive researcher does not portray a critical viewpoint on a subject matter, but instead attempts to clearly illustrate the participant's perspective (Kazanchi & Munkvold 2002).

3.2.3 The Philosophical Framework

Taking into consideration the above-discussed ontological and epistemological paradigms, it is believed that the most suitable philosophical framework for portraying this study includes a qualitative, inductive and interpretive stance. The section to follow describes the chosen research method and the sections, thereafter, further describe and justify the implementation of this specific philosophical approach.

3.3 Case Study Research

Miles and Huberman (1994) describe a case as a phenomenon occurring within a bounded context, where a case may encompass 'an individual, a role, a small group, an organisation, a community, or a nation. It could also be a decision, a policy, a process, an incident, or an event of sorts' (Punch 2005, p. 144). Scholtz and Tietje (2002) supplement this view by stating that 'a case could be a university department, a railway company, a city, or even a child. A case is considered from a specified perspective and with a special interest. It is unique, one among others, and always related to something general' (Scholtz & Tietje 2002, p. 1).

A case study is a research method that seeks to organise social data in a manner that conserves its unitary character (Smith 1990). This specific research method enables a more holistic examination of the context of events being researched and, therefore, affords greater understanding of the meaning of the results, the conclusions deduced from them, as well as the limitations encountered during the course of the research. Yin (1986) defines the case study research method as 'an empirical inquiry that investigates a

contemporary phenomenon within its real-life context when the boundaries between the phenomenon and the context are not clearly evident; and in which multiple sources of evidence are used' (Yin 1986, p. 23). It is important, however, that the researcher undertaking a case study should simplify the description, in order to effectively convey the critical elements that are considered pertinent to the study at hand (Smith 1990). Eisenhardt (1989) further clarifies that a case study is a research strategy that mainly focuses on describing the dynamics prevalent within single settings. While multiple sources of evidence are used in case study research (Yin 1986), this current study has mainly relied on direct observations, as well as interviews.

The case study research method is one of several social science research methods and as Yin (1994) notes, is generally used in instances when the research poses 'how' or 'why' – questions, when the researcher has minimal control over proceedings and events, and when the researcher considers contemporary issues (Yin, 1994). In later years, Yin (2003) revised the three instances in which the case study research method may be relevant to include defining a research topic in a generalized manner, analysing complex and multi-variable conditions and relying on several sources of evidence. Yin (1984) stipulates that there are three predominant case study strategies, namely exploratory, descriptive and explanatory. An exploratory case study is described as one that would generally be applied during the "exploratory" phase of an investigation. It is adopted in the same manner as one would an exploratory experiment - to establish a good idea of the depth of the subject matter to be studied. A descriptive case study is one that 'traces the sequence of interpersonal events over time, describes a sub-culture and discovers key phenomena' (Yin 1986, p. 15). And finally, an explanatory case study is one where 'the researcher's objective is to pose competing explanations for the same set of events and to indicate how such explanations may apply to other situations' (Yin, 1986, p. 16).

The theories generated from case study research are compiled through logical inference instead of statistic inference. These theories are corroborated by a theoretical and practical discourse; wherein the propositions extended by the researcher are challenged and are judged by the strength of the arguments posed (Smith 1990). Klein and Myers

(1999) discuss the case study research method can be undertaken within a positivist or interpretive paradigm and may be deductive or inductive. Yin (1984) states that case studies can include both quantitative and qualitative evidence and that adopting a quantitative (positivist) approach entails using questionnaires, accompanied by a purely numeric data collection strategy followed by statistical analyses to establish the correlation between dependent and independent variables. Implementing this approach as the sole method of data collection and analysis can impede on the descriptive nature and depth of discussion that can be derived through adopting an interpretive or critical stance.

The case study research approach includes two variations to its design, namely, single- and multiple- case studies. This is based on the assumption that single-case and multiple-case designs reflect different design considerations and that within these two types; there can also be a unitary or multiple units of analysis. When attention is given to a subunit, or subunits, such a design consideration is referred to as an embedded case study design. Its main advantage is that this case study design outlines clear and precise subunits, which serve to guide the researcher through the process, acting as a good point of reference during the undertaken study (Yin 1984).

A key disadvantage arising with an embedded design is experienced in the event that the researcher focuses only on the sub-unit level, and subsequently fails to relate this subsidiary analysis back to the larger unit of analysis, which is essentially the actual basis for the case under observation. In direct contrast to the embedded case study design is the holistic design, which ensues when the case study is examined in an all-inclusive, unitary manner. The holistic design is mainly applied in the instances when no logical subunits can be identified and also when the theory underlying the study is itself of a holistic nature. A downfall of adopting this case study design however, arises in the event that the researcher avoids examining any specific phenomenon in detail, thus resulting in the entire study being conducted in an abstract level, lacking in clear measure and data (Yin 1984). Both the embedded and holistic case study designs can be related to either single or multiple case studies.

This study adopts a single case study strategy, which incorporates an embedded design because of the clear and distinct highlighted propositions. These propositions provide this study with anchorage and direction, and do not limit the researcher's view to focus only on the sub-unit level, as the data analysis has been conducted in a manner that allows the emergence of new and pertinent themes. These themes relate back to the propositions under observation, which constitute the examined case.

Yin (1984) suggests that the single case design may be used to confirm or challenge a theory, or to represent a unique or extreme case. The use of a critical case is suitable for a researcher seeking to test a 'well-formulated theory' (Yin 1984, p. 43), where this theory has specified clear propositions and relays a clear understanding of the circumstances within which the propositions are believed to be true. A critical case can be used to determine the coherence of the stated propositions or ascertain whether there are other competing explanations that are more appropriate. In this manner, the use of the critical case can extend the generation of knowledge and theory building (Yin 1984). Where a case is extreme or unique, a single case design is suitable. This is applicable when 'there has been no opportunity, in practice or in research, to uncover and confirm common patterns' (Munhall 2001, p. 368). A revelatory case is one that brings understanding to a phenomenon, obscurely understood (Munhall 2001).

The above-described situations represent the key instances in which single case study research is conducted, however, this does not preclude single case studies being conducted as a prelude to further study, such as instances in which single case studies are used as exploratory devices, pilot studies or as a prelude to multiple-case study research. A problem associated with conducting a single case study, is the risk that it may not turn out in the manner envisaged by the researcher, therefore in order to minimize the chances of misrepresentation, the potential case examined in single case designs should be carefully investigated (Yin 1984).

The case study is the selected research method implemented in evaluating the networking behaviour of built environment professionals operating owner-managed SME

firms within the South African built environment. This dissertation conforms to the above-prescribed instances of a single case study design. This study has clear and distinct propositions, which provide it with anchorage and direction. There is broad international theoretical premise on the subject of networks and entrepreneurship, which is well formulated. This serves to provide this specific case study with substantial theoretical endorsement, as the networking activity of South African built environment professionals has not been adequately explored. Thus, this study is revelatory in nature, bringing enlightenment to the entrepreneurial networks and networking behaviour of built environment professionals, within a South African context. This study has relied on semi-structured interviews to satisfy this requirement.

3.3.1 The Rigours of the Case Study Approach: Validity and Reliability

Researchers employing both quantitative and qualitative research methodologies need to demonstrate that their studies are credible (Golafshani 2003). In a quantitative research inquiry research rigour is determined by examining validity and reliability, while in qualitative research terminology such as 'credibility, transferability, and trustworthiness' (Golafshani 2003, p. 600) is used. Guba and Lincoln (1981) assert that each research paradigm requires paradigm-specific criteria, noting that in a quantitative paradigm, the criteria used to test "rigour" are internal validity, external validity, reliability and objectivity. In a qualitative paradigm, Lincoln and Guba (1985) present credibility, transferability, dependability and confirmability as the main criteria to test research "trustworthiness". Morse *et al.* (2002) have noted that focusing on testing criteria that are not inherent to the research methods applied, could result in a de-emphasis of the self-correcting mechanisms that have been built into each phase of the research strategies that ensure the quality of the project (Morse *et al.* 2002).

There are a few authors (Hammersley 1992; Kuzel & Engel 2001; Yin 1984; 1994) who argue that the concepts of reliability and validity can be applied to all research because 'the goal of finding plausible and credible outcome explanations is central to all research' (Morse *et al.* 2002, p.3). Yin (1984; 1994) extends a four-tiered validity and reliability design test, in order to enhance the credibility of implementing case study as a principal research method. The design test addresses four dimensions that are essential in

ensuring effective quality control in case study research: construct validity, internal validity, external validity and reliability (Yin 1984, p. 36).

3.3.1.1 Construct Validity

Construct validity relates to whether empirical data, in multiple situations, leads to the same conclusions. According to Yin (1994), there are three methods of achieving construct validity: through adopting multiple sources of evidence, having key informants review the developed case study report and establishing a coherent chain of evidence, for the benefit of the reviewer (Yin 1994). Schell (1992) notes that construct validity is crucial if case study researchers are to overcome the 'subjectivity' label commonly associated to this research strategy.

3.3.1.2 Internal Validity

Internal validity relates to the empirical data and provides information relevant to the theoretical unit. This is achieved by using pattern matching, which is used foremost to enhance internal validity. Pattern matching involves qualitative logic reduction, where an empirically-based pattern is set-off against a predicted pattern obtained from rival theoretical perspectives. Yin (1994) highlights the importance of pattern matching using rival theories, by stating that theoretical perspectives need to be distinct, with minimal overlap among the independent variables.

3.3.1.3 External Validity

External validity relates to the generalizability of findings, which tests the ability of the research to produce results that can be generalized to other cases. Schell (1992) claims that this criterion has received much criticism due to the limited scope for generalization available in case study design, although replication, as in any experimental process, tends to extend the ability to produce general statements (Schell 1992).

3.3.1.4 Reliability

Reliability relates to the stability and consistency of the findings of the study over time (Yin 1994). Reliability requires the researcher to follow the same process when repeating the same case process, uniformly with precision. This is essentially ensured by maintaining a case study database and adopting a clear case study protocol. Reliability is most important during the data collection phase.

This design test is used by case study researchers and is summarized in numerous social science texts, as the benchmark in achieving the desired quality and credibility of case study research. This study has adhered to the afore-described, validity and reliability design test in implementing the case study research method as a benchmark for judging the quality and design of the case study research protocol. Yin (1994) advocates for the use of multiple sources of evidence as one of the three methods of achieving construct validity. This study has mainly relied on direct observations, as well as interviews to satisfy this requirement. The specification of a unit of analysis, described in section 3.4, has been central in directing the theories developed, and has guided the data collection and analysis in this current study. This has enhanced the internal validity of the research. New and pertinent emerging themes have been considered. The patterns observed in these emerging themes have been matched by implementing qualitative logic reduction practices, described in section 3.7.2. Yin (1994) asserts that external validity can be achieved from creating relationships between the theories generated, which can be generalised to other cases of a similar nature. A clear and consistent process was adhered to during the data collection phase, aided by the development of a case study database and a clear case study protocol. This has served to ensure the reliability that is required of all research.

An aspect of the case study methodology that has drawn criticism is the limited basis it provides for the traditional scientific generalization (Remenyi *et al.* 1998; Schell 1992; Yin 1994). Amaratunga and Baldry (2001) note that the potential difficulty encountered when generalizing findings in case study research, relates to the dependency between phenomenon and context. Notwithstanding this perceived limitation, Amaratunga and

Baldry (2001, p. 100) observe that case study results can be 'generalized to theoretical propositions (analytical generalizations) but not to populations or universes (statistical generalization)'.

Punch (2005) claims that generalization should not necessarily be the key objective of all research projects, and suggests two instances in which a case study can produce generalizable results. The first is by conceptualizing, where a specific case focuses on conceptualizing one or more new concepts to describe an aspect of what the study is evaluating; and the second, by developing propositions which enable the researcher to link concepts or factors together that can then be 'assessed for their applicability and transferability to other situations' (Punch 2005, p. 146). Both instances depend on the purpose of the case study as well as the manner in which data are analysed. Punch (2005) emphatically states that while neither of these instances proves the generalizability in the findings of one case study, they certainly convey concepts or propositions for testing in further research (Punch 2005).

Yin (1984) acknowledges the shortcomings in the methodology of case study research, but contends that refinement and standardization of technique can easily correct the practical shortcomings experienced. Notwithstanding this typecasting, the case study research method remains one of the most extensively used within the realm of social science research. The aim of case studies cannot be to conclude global findings, but rather to understand and articulate patterns and linkages of theoretical importance (Yin 1984). As case studies deal with unique situations, it is not possible to elaborate detailed and direct comparisons of data (Amaratunga & Baldry 2001).

3.4 The Unit of Analysis

In qualitative research, the term unit of analysis represents the 'who' or 'what' (Trochim 2006) the study intends to base its assertions on. It represents the 'group of people, documents, events, or specimens', from which the researcher is interested in collecting data (Botma *et al.* 2010, p. 291). A unit of analysis can also be 'the individual case or group of cases that the researcher seeks to express something about when the study is completed' (Teddlie & Tashakkori 2009, p.169).

In this study, the unit of analysis has been identified as professionals operating within the South African built environment, specifically the ensemble of practitioners that constitute the professional team in any undertaken construction development project. The aim of this dissertation is not to make global generalisations to the entire South African built environment, but rather to highlight a phenomenon, pertaining to the entrepreneurial networks and networking behaviour of the specified professionals.

3.4.1 The Interviewees

Semi-structured interviews were conducted with fourteen individuals, representing several key professions within the built environment professional team. The fourteen interviewees included:

- 5 Quantity Surveyors;
- 4 Architects;
- 3 Project Managers;
- Structural Engineer and,
- Property Developer

3.5 The Sampling Technique Adopted

The selection of sampling technique depends on the individual researcher's goals. Faugier and Sargeant (1997) suggest that quantitative designs tend to adopt representative sampling strategies in order to make inferences about the entire population, while qualitative sampling designs, which are non-generalizable to an aggregate population, extend theoretical understanding of a social process (Faugier & Sargeant 1997). This study adopts a non-random or a non-probability sampling procedure, through the implementation of a purposive sampling strategy. Purposive sampling is based on the identification of a sample, with pre-defined intentions. It is defined as a 'selection of units based on specific purpose associated with answering the research question' (Teddlie & Tashakkori 2009, p. 22).

Snowball sampling is a sub-category of purposive sampling, and involves capitalising on respondents' social networks to identify other respondents, who would otherwise be hard to locate or access. Snowball sampling, which is also referred to as chain sampling,

chain-referral sampling, or referral sampling, is a link-tracing methodology that 'relies on a series of referrals that are made within a circle of people who know each other or are loosely connected with one another' (Brackertz 2007, p. 3). The interviewees are asked to name another person whom they feel may fit the criteria pre-determined by the researcher. These newly identified individuals are subsequently interviewed, at which time they are requested to nominate other individuals who fit the criteria, and so on and so forth (Brackertz 2007). While this sampling technique is hardly going to result in representative samples, it is especially useful when trying to access samples that are inaccessible for myriad factors.

A disadvantage associated with snowball sampling is over-representation, as respondents with a larger number of social connections are able to provide the researcher with a higher proportion of additional respondents who possess the sought-after characteristics. This results in the sample being over-represented by respondents with greater social connections, as opposed to those with fewer social connections (Johnston & Sabin 2010). This potential selection bias is easily controlled for if the researcher keeps a listing of the respondents being interviewed and is mindful not to interview excessive numbers stemming from a singular source. This can be applied by the adoption of a systematic strategy, such as limiting the number of respondents gained from a single source to a pre-determined number of respondents. Snowball sampling is justified when seeking an in-depth understanding of selected individuals, and not when seeking to accurately represent a defined population. This study has implemented snowball sampling as the chosen sampling technique due to the limited access the researcher had to the unit of analysis, directly attributed to their limited availability or complete inaccessibility.

In this study, the snowball sampling strategy began with two contacts known to the researcher through this study's research supervisor. These initially identified contacts, in turn, offered referrals to other professionals, possessing the sought after characteristics, for participation within this study. The initial contacts were acknowledged within the resulting correspondence with the subsequently referred professionals. It was found that

in acknowledging the “referrer”, the referred professionals became more willing and enthusiastic about giving of their time and agreeing to be interviewed.

3.6 Data Collection

Data collection within the case study paradigm can transpire through any of the six sources of evidence (Yin 1986), namely:

- Documentation
- Archival records,
- Interviews
- Direct observations
- Participant observation
- Personal artefacts (Yin 1986, p. 79)

Yin (1984) indicates that interviews are one of the most important sources of case study information, and may take different forms, such as ‘open-ended, focused or structured’ (Yin 1984, p. 83). Open-ended interviews are considered most common in case study research, as they allow flexibility to both the interviewer and the respondent, in that the interviewer can ask the respondent for the facts of a matter, for their opinion on events as well as for their own insight on occurrences. With focused interviews, the questions may still remain open-ended and may take on a more conversational manner. In this instance, however, the interviewer may use the guidance of a pre-determined set of questions. This style of interviewing may be purposeful if the researcher is trying to corroborate certain pre-established facts about the investigation, in which case the interviewer must be careful to remain open-minded about the topic, thus enabling the respondent to provide commentary on the subject (Yin 1984). The structured style of interviewing entails asking the respondent more structured questions; Yin (1984) likens this approach more to a survey.

This study has adopted a more ‘focused’ (Yin 1984) interviewing style. This interviewing method is also commonly referred to as semi-structured. The data was collected through semi-structured interviews, which were audio recorded. Rozakis (2004) indicates that the recording of interviews enables a more inclusive and precise record of the data, allowing

the interviewer to allocate complete attention to the respondent. Additional hand written memos were recorded, and in certain instances, respondents were asked to reiterate points of particular interest. Individual level data was collected through conducting interviews with built environment professionals. These interviewees identified themselves as the owner-manager of the SME firm. They were, therefore, capable of answering the questions posed and recounted their respective experiences of their duration within the industry as well as their experiences in administering their SMEs. The purpose of the interviews was to establish the change in the built environment professionals' networking behaviour over the duration of their business endeavours, achieved through examining the key delineating network variables outlined in this study: network ties, network range and network intensity.

3.7 Data Analysis Strategy

Yin (1984) suggests that data analysis comprises several sub-components, such as 'examining, categorizing, tabulating or otherwise recombining the evidence' (Yin 1984, p. 99). This is in an effort to address the initial propositions of the study in a manner that treats the evidence fairly, in order to produce compelling analytic conclusions, to avoid misinterpretations and undue bias of the generated results (Yin 1984). There are three dominant analytical techniques that can be applied within a case study framework: pattern-matching, explanation-building, and time-series analysis. These three analytical techniques do not preclude the use of other techniques, especially in the instance in which a case study has embedded units of analysis or when a large number of case studies require analysis (Yin 1984):

Pattern-Matching

The pattern-matching logic compares an empirically based pattern with a predicted one. If the patterns coincide, this result serves to strengthen the case study's internal validity (Yin 1984).

Explanation-Building

Explanation-building stems from pattern matching. It involves the analysis of the case study data by developing an explanation about the case. Developing the

explanation about a phenomenon pertains to stipulating a set of causal links about it, in spite of these links being complex to measure precisely. Explanation building mainly occurs in narrative form. Yin (1984, p. 107) claims that explanations that are 'theoretically significant propositions' generate good case studies.

Time-Series Analysis

The time-series analysis in case study research is similar to the time-series analysis in experimental and quasi-experimental research, where there tends to be a single dependent and independent variable. Time-series analysis occurs when events are traced over time. Yin (1984) postulates that a more intricate and precise pattern results in a greater likelihood of the time-series analysis offering a firm foundation upon which conclusions of the study can be based.

In considering the afore-described analytical case study techniques, this study has in addition, adopted thematic analysis as the principal technique upon which the interpretations of the findings of this dissertation have been based. Thematic analysis is a process of analysing data based on 'commonalities, relationships and differences across a data set' (Gibson & Brown 2009, p. 127). The term 'thematic' pertains to the aggregation of themes within data. A theme described as 'a generalised category of contextually specific aspects of social life that become treated as 'of a generalised type' in order to compare them with other instances of data that are labelled in the same way' (Gibson & Brown 2009, p. 129).

Thematic analysis categorically codes the themes pertaining to the data set on the basis of commonality. Gibson and Brown (2009, p. 131) define the process of coding as 'the creation of categories used to describe a general feature of data', where a code is described as 'a conceptual device for the description of commonalities in data' (Gibson & Brown 2009, p. 131). A wide variety of data forms, such as interviews, direct observations, visuals and textual data, support application of coding. This aspect has been elaborated upon further in section 3.7.1, which draws a discussion on the data analysis software applied during the course of this study. Gibson and Brown (2009)

highlight the three general set of aims of thematic analysis as relating to the examination of commonalities, differences and relationships, which have briefly been elaborated upon below:

Commonalities

The examination of commonalities in thematic analysis describes the manner in which similar constituents of a data set are clustered together in representation of a specified category. These resultant commonalities are usually subjected to further analysis and subdivision (Gibson & Brown 2009).

Differences

In examining the differences, the researcher observes the distinctive features of the data set. The purpose of this is to 'find and analyse the peculiarities and contrasts within a given data set' (Gibson & Brown 2009, p. 129) and to further assess the potential relevance to the issue being studied.

Relationships

The examination of relationships entails studying the relationships occurring between the various elements of the analysis. This could entail identifying the manner in which the different coded categories relate to one another or how specific characteristics or nuances relate to general themes (Gibson & Brown 2009).

A drawback inherent in adopting the thematic analysis technique is that, in creating a generalized set of data that seeks to succinctly encapsulate the experiences of participants, the researcher may lose focus on the impending particularities of the case being examined, resulting in an indigent account of complex, lived features of social life. The created categories can potentially hide as opposed to reveal the intricate contextual information (Gibson & Brown 2009). This should in no way imply that categorisation is not valuable, as the application of themes to a study is useful for narrative construction, providing an avenue for linking diverse ideas and experiences together, and of contrasting and interrelating different examples and feature of the data (Gibson & Brown 2009).

In seeking to examine the evolution of entrepreneurial networks of emergent and early growth owner-managed SMEs operating within the South African built environment, this study has identified the overarching themes of analysis: networking behaviour, entrepreneurship, network composition, network evolution and firm development. These themes serve to guide the course of this analysis on the examination of the networking behaviour of South African built environment professionals.

3.7.1 Data Analysis Software

NVivo is a qualitative data management programme that organises raw data, such as interviews, observations etc. and links them with memos and 'databites' (Walsh 2003). Through NVivo, 'researchers can create codes and analytical notes, and then edit and rework ideas as the project progresses' (Walsh 2003, p. 253). The programme's query tools enable the analyst to see the emergence of subtle trends and patterns within the data, where these queries can be saved and rerun, allowing one to track and compare the results over a period of time (QSR International 2008). NVivo codes the actual language found in the qualitative data, as used by the participants themselves (Strauss, 1987).

In essence NVivo codes capture 'behaviours and processes' (Saldana 2009, p. 76), providing clarification as to how the actor's problems are resolved or processed (Strauss 1987). Charmaz (2006) highlights that NVivo coding enables the preservation of the participants' meanings and views, within the actual coding. 'NVivo codes can provide imagery, symbols and metaphors for rich category, theme and concept development' (Saldana 2009, p. 76). The NVivo nodes are like virtual filing boxes, allowing the analyst to see all the information pertaining to a specific theme summarised together. 'NVivo provides a sophisticated workspace that allows one to work through material – discovering patterns, identifying themes, gleaning insight and ultimately delivering informed, robust findings' (QSR International 2008, p. 1). This study has applied NVivo 8, as the data management programme through which the findings have been analysed.

3.7.2 The Data Coding Process

Figure 3.2 below illustrates the coding process adopted in inductive analysis. Inductive coding begins with reading and interpreting the vast amount of text, generated from transcripts, and extracting the multiple meanings inherent within the text (Thomas 2006). The analyst then identifies vital text segments, which contain significant units of information and assigns a category, with a corresponding description, to the related text segment. These categories are then replicated, as new and meaningful text segments. Additional text segments are then added to the relevant categories. The categories may then be linked to other categories in various relationships, such as 'a network, a hierarchy of categories, or a causal sequence' (Thomas 2006, p. 243), alternatively these categories can be collapsed, where redundant. The aim of this process is to create a small number of summary categories, which are in essence the prevailing themes of the analysis. These categories should present the key themes identified in the raw data, which evaluate the research objectives (Thomas 2006).

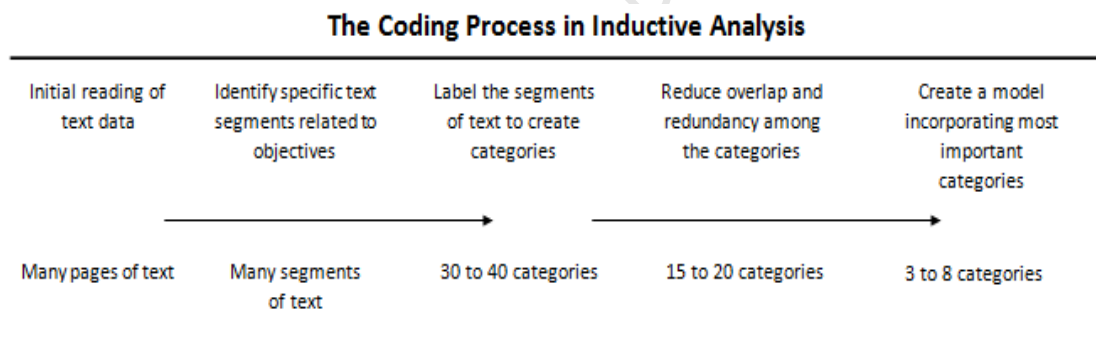


Figure 3.2 The Coding Process in Inductive Analysis (Source: Creswell 2002, p. 266 Fig 9.4)

The inductive analysis coding process, the five-step process which this study has followed, is succinctly illustrated below (Thomas 2006):

- Preparation of raw data files
- Close reading of the text
- Creation of categories: Upper Level (more general categories) and Lower Level (more specific categories)
- Overlapping coding and uncoding text
- Continuing revision and refinement of category system

3.8 Observer Impression

The bias that the researcher needs to be conscious of is the aspect of the 'non-representative' sample. Caution should be exerted by the researcher to ensure that the sample is representative of the population to which the data will be generalized to, if generalization is a primary concern of the undertaken research (Ibrahim *et al.* 1999). In this study, generalising to the entire South African built environment is not the primary objective. Instead, this study seeks to draw attention to the entrepreneurial networks and networking behaviour of professionals operating within this specified sector.

The researcher needs to be wary of interviewer bias, which occurs when the interviewer asks leading questions that influence the respondent's answers, or when the respondent's answers are distorted in any way. Interviewer bias can be eliminated through revising the manner in which the questions are conveyed and by applying questions with fixed-wording on the interview protocol (Ibrahim *et al.* 1999). The adoption of snowball sampling as the chosen sampling technique can potentially result in 'selection' and 'personal' biases (Ibrahim *et al.* 1999). Selection bias is the distortion of the study's sample, attributed to applying improper procedures for obtaining individuals from the unit of analysis to become participants within the undertaken research (Ibrahim *et al.* 1999). This bias can be averted by applying a systematic approach in extracting participants from the unit of analysis; through, for example, keeping a record of participation and ensuring that over-representation is eliminated. Personal bias occurs in the instance in which the researcher has to establish a personal relationship with the professionals participating in the study, in order to get them to provide the researcher with a referral, especially if this request is tabled right at the beginning of their correspondence. This can influence the participant's behaviour and thoughts about the entire process, and can be avoided by requesting the referrals at the end of the scheduled interview and respecting that the participants may decline this request (Ibrahim *et al.* 1999).

3.9 Chapter Summary

This investigation has adopted a qualitative, inductive and interpretivist research framework. The single case study has been implemented as the selected research methodology. Semi-structured interviews were conducted with fourteen individuals, representing several key professions within the built environment professional team. This study has used snowball sampling as the chosen sampling technique. Chapter 4 presents the research findings obtained from the interviews conducted with the interviewees.

University of Cape Town

CHAPTER 4: PRESENTATION OF THE RESEARCH FINDINGS

4.1 Introduction

This chapter presents the empirical research findings of the current study. The results obtained from the fourteen semi-structured interviews have not been differentiated between, except for the instances in which the researcher seeks to draw emphasis to a specific point of discussion. The results obtained evaluate the entrepreneurial networks of South African built environment professionals, through specifically examining the networking behaviour exhibited by the interviewed built environment professionals operating Small to Medium-sized (SME) owner-managed firms.

The first section in this chapter highlights the 'global' and 'organising' themes (Attride-Stirling 2001, p.389) illustrated in the thematic network diagram, depicted as figure 4.1. In this section, a thematic network is used to illustrate the pertinent themes extracted from the thematic analysis. These themes constitute the salient research findings. It is vital to differentiate the term "network", as applied in this instance (as an analytical tool), from the term as it relates to the social or entrepreneurial relationship between parties, described at length throughout this study.

The findings discussion begins with an examination of the networking behaviour adopted by the built environment professionals, when developing their network relationships. The sections thereafter include discussions on business development strategy, wherein subsections address aspects of project procurement and marketing. The last two sections present the largely emergent and allied subjects: the personality of the entrepreneur as well as the age of the firm. All of the above areas of discussion address various aspects of the research propositions. Areas of interest that were not initially considered by the researcher, but have emerged over the course of the data collection phase have also been presented. This discussion presents the responses that have materialized out of the interviews held with fourteen built environment professionals. Content analysis was not an objective in this data analysis, thus each interviewee's comments have been equally considered.

The quotations included in this chapter are examples that are broadly representative of the presented discussion. The salient perspectives stated by the interviewees have been underlined for ease of reference.

4.2 Thematic Network

Attride-Stirling (2001, p. 387) describes a thematic network as a 'three-tier, web-like' illustration that represents the salient themes extracted from thematic analysis. Thematic networks are 'well-established in qualitative research' (Attride-Stirling 2001, p. 387). The aim of a thematic network is to structure and depict the presented themes from the textual data and illustrate them, by utilizing a representational tool (Attride-Stirling 2001). Thematic networks are categorized as follows:

- **Basic Themes:** The lowest-order premises which are derived from the contextual data;
- **Organising Themes:** The middle-order themes which cluster the basic themes together based on the similarity of discussion;
- **Global Themes:** The super-ordinate themes that group together sets of organising themes that, when considered together, 'present an argument, or a position or an assertion about a given issue or reality' (Attride-Stirling 2001, p. 389).

The application of the thematic network to a research study, affords simplicity to organising the thematic analysis of qualitative data sets.

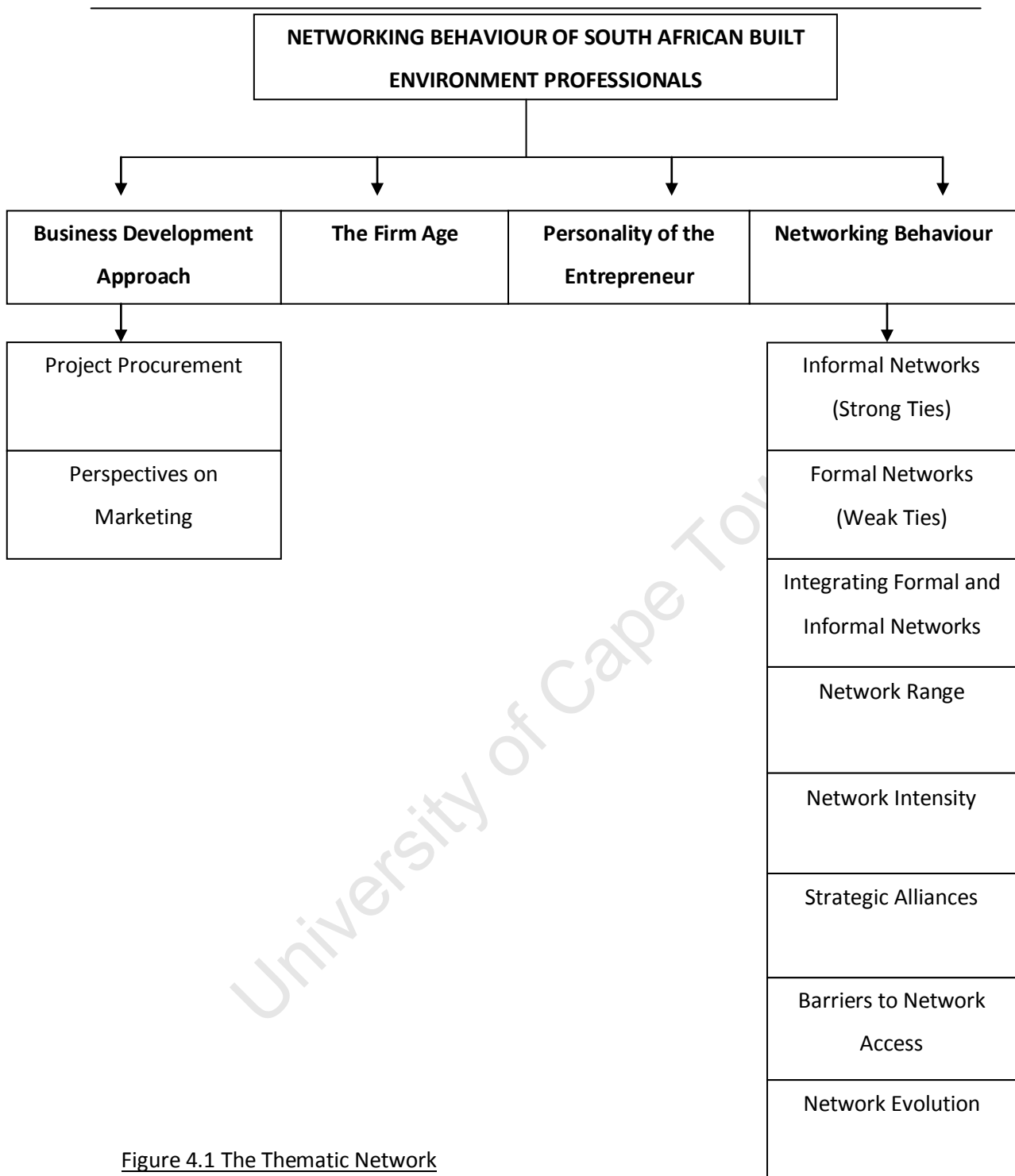


Figure 4.1 The Thematic Network

Figure 4.1 illustrates the themes derived from the textual data. Only the global and organising themes of the thematic network have been presented for ease of reference. The discussion to follow elaborates on both the global and organising themes illustrated.

4.3 Networking Behaviour

In seeking to gain insight into the interviewees' individual perspectives on networking and the process of developing network relationships, the built environment professionals were given an opportunity to delineate their intrinsic networking philosophies. The discussion on networking behaviour made it clear that the essence of networking is related to the distinct personality of the entrepreneur, as well as their business development outlook. These two areas of discussion are elaborated in sections 4.5 and 4.4, respectively. When asked to relay what their personal networking experience had been over the duration of their business life, one interviewee had the following to say:

"Networks, first of all, are quite a modern sort of concept. And in my days gone by, we didn't talk about networks, we just did it. And I've never been very good at it personally I'm a quiet introverted person, and I have very limited, but very trusted connections with other people. In other words, I work with few other people, but generally over a long period of time. So I have very small networks, I had no formal approach to networking in the early years, and probably one of the reasons my business stayed small".

Another interviewee broadly reflected on the manner in which their networks had developed during the course of their business, and also briefly described their intentions for their business development.

"I suppose as you get known the network takes care of its self. You don't really have to do anything. If you do good work, and you work hard for your clients and they're happy with you, I suppose it just grows itself. I've done nothing to make it grow, except maybe produce buildings that people want to use.... I think I operate in very old-fashioned, small network systems, probably very outdated, don't do cocktail parties, don't do any of those things. But I nevertheless, have a strong bunch of people who work around me, and who I'd recommend happily and who I get on great with, and ja, My working life has been really happy, successful, it's not particularly stressful. I'd like to keep it small".

An interviewee, adopting a different network perspective to those described previously, expressed their approach to developing and preserving their network relationships:

"I'm a great lunch doer. A lot of business is done over lunch. A lot of relationships are maintained and strengths are built over just going to lunch".

The above quotations provide insight into the varied networking philosophies adopted by the interviewees. Their approach to networking varied between those who had adopted a passive approach to networking and those who had adopted an active approach to networking. The built environment professionals that had adopted a passive approach to networking were observed as those that had allowed their networks to develop on their own, without a concerted effort. The built environment professionals that had adopted an active approach to networking were observed as those that had implemented a strategy to actively develop and maintain their networks. It was found that a significant proportion of the interviewed professionals adopted a passive approach to networking, while a smaller subset opted for an active approach to networking. The interviewees that implemented an active approach to developing their networks, generally tended to be members of networking organisations that operated on different platforms e.g. nationally, provincially or in certain instances even privately organised by the interviewees themselves. When questioned about their involvement within the networking organisations, the interviewees asserted that these organisations had provided a platform whereby they could meet with other professionals within the built environment as well as other allied industries, potentially resulting in network expansion avenues:

"The organisations that I've become involved in are now more outward looking you know. Cape Town Partnership was all about repositioning the CBD of Cape Town, as the major centre you know. So that's where my energies have now focused, and as a result of that, the network has really grown. I'm a member of SAPOA, South African Property Owners Association. Every year we have a SAPOA conference, thousands of people attend that, every year the networking opportunity just grows and grows".

An interviewee stating a contrasting perspective on the merits of networking organisations reflected that in their experience, some of the organisations that they were members of had not been exceedingly beneficial. Instead, they felt that in certain instances, these organisations had been poorly managed:

"I'm a member of the Association of South African Quantity Surveyors (ASAQS) in the Western Cape. For a long time I thought they weren't very active and not much happened, which I've enquired about and they're now kind of a bit more on the ball. They're supposed to have some type of forum thing, which... I think they've had two meetings in two years, so not much has happened there... I also became involved with Women's Property Network, so they helped a bit, although I must say that I often felt that there seems to be a lot more estate agents than anybody else in the industry, and estate agents are not gonna really get me work, you know. So sometimes I thought it was a bit of a waste of time, but I still, it's still just nice to meet other people who operate in the industry because you never know where, when and what happens".

The interviewees highlighted that the activity of networking and the process of building the relationships constituting a network is individualistic, driven by one's own motivation, demeanour and desired business outcome. Networking behaviour is interpreted and pursued uniquely by different built environment professionals. This section has illustrated the interviewees' perceptions of networks and has delineated different networking philosophies, illustrating that networking is a notion that is not universally perceived and adopted. The discussion served to draw the reader's attention to some of the aspects that will be considered in further detail in the discussion to follow, by providing an overview of the subject matter. The sections to follow address the various components of the propositions examined by this current study.

4.3.1 Informal Network Ties (Strong Ties)

This discussion addresses the segment of this study's research proposition which states that emerging firms tend to adopt an informal network composition, consisting of strong ties, a low networking range and a high networking intensity. In examining whether the

built environment professionals had indeed incorporated strong ties during the emerging stages of their respective SMEs, the interviewees were asked to identify the individuals and/or professionals that had been integral in offering them the business support required during the initial months of setting up their currently-operated business. In the case of serial entrepreneurs that were on to their second or third business ventures, this entailed a recollection to the business support received during the emerging stages of their very first built environment business endeavour. None of the interviewees struggled to remember such a time, and were in fact very clear as to who had been integral in availing them with beneficial business support structures during that specific time in their young organisation's life:

"One's friends tend to be fellow architects and we are all a very supportive environment, so as soon as my friends knew I was going on my own they are the ones who said, 'Great, I'll send you some work. I've got a little job for you and...' so always, I think we are always in support of one another".

Another interviewee who also received their initial business support from their strong ties provided a brief illustration of the beginning stages of their business practice:

"When I started out, there was one person, well a specific person, another architect, that's actually part, like family, not close family but I contacted him. I said to him 'Listen I'm starting out on my own', because that's actually one good point to start, with some that you know and that knows you. And he put me touch with a couple of other architects who then basically got me one of my first jobs, and from there on, you realise the industry is actually quite small and you quickly meet a lot of people".

Not all of the interviewed built environment professionals attested to receiving their initial business support from strong ties. Some were adamant that they had never integrated strong ties into their SME firms at any specific point, not even during the emerging stages of their business operations:

"I can't think of a single incident where a personal acquaintance got me a job or access to anything – it's very much a professional network. So there's no kind of family relationships that have helped me get access into any sector of business or anything like that. I've never relied on anything like that before".

Another interviewee relayed in detail how the business support received during the inception of their business operations, had not been from the traditional sources initially expected at the onset:

"We started off as a black business, you know it was 100% black-owned, black operated, black everything and our expectation at the time, was that we were going to be supported by other black people and Government and what have you, and that wasn't the case. The people who were willing to take a risk on us were white. Ja. So, the woman who recommended us at the City of Cape Town, is a white woman, my first private job was with a Jewish developers, at the V&A Waterfront, it was a Afrikaner guy, so the lesson I learned is that when you start out, don't go to your traditional source of support, coz rarely will you find a support there. What happens over time, is that as your business matures, and it develops a track record and everything, then your traditional base comes in. And at that point, when the traditional base comes in, it really allows you to grow. But in the early, formative stages, you know, it's amazing. It's the sources that you least expect".

In an effort to triangulate the inquiry, the interviewees were unequivocally asked whether friends and/ or family had, at any point, been integrated into their business operations. Some of the interviewees acknowledged that they had included strong ties into their business operations at some point in time, while the other interviewed professionals stated that they had made a concerted effort not to involve strong ties in any aspect of their business operations at any point:

"It doesn't matter how carefully you plan, or how carefully you manage, a building project, particularly luxury housing, which is a very personal thing. The perceptions of

the person who is putting the money down is sometimes very difficult to identify and really only comes to light when you start giving them the product; 'Oh, I didn't think that's what it was going to look like', or 'Is that how much it's going to cost?' You don't need that amongst family or amongst friends. You keep your business to your business and you keep your family to your family, otherwise you can have horrendous problems".

The interviewees differentiated strong ties into two specific categories, namely; friend and family, as well as spouse/partner. A brief discussion of these categories is included below.

Family and Friends

It was observed that the interviewees who had involved their family and/ or friends at any point over the duration of their business operation did not predominantly limit this involvement only to the emerging stage of their firms' existence. This involvement tended to develop into a need-based business support, redeemable as and when the need for such support occurred. The business support generally received from the interviewees' strong ties, was mainly from those strong ties in the same profession, or in a position to get the built environment professionals more exposure to an identified opportunity:

"I couldn't start on my own, without having at least one fee paying project, which did come through a old work acquaintance/friend, who recommended me and that allowed me to go on my own, and it is somebody that I would still call up, not for work, but because I have a debt of gratitude to them, and we remain in touch because of that".

Another interviewee conveyed how the strong ties initiated during their time spent studying at university had successfully been integrated into their working life:

"I do have three or four really good architects who could step in at any time and take over my projects for me. That's really just having been through six years of studying with them and socialising with them. And I suppose out of all the social networking, the only other people that I socialise with are other architects. Ironically, and I certainly if, I have too much work I would give it to one of my three or four close architect friends without a second thought".

Spouse/ Partner

A small subset of the interviewees had spouses or partners who were also professionals within the built environment, who tended to provide the interviewees with some form of business support, which was not confined to any specific era of the business operations:

"My husband is an architect. He actually often helps me out, because he's got a good understanding of what I'm doing obviously as an architect. So I involve him, but no one else really".

Another interviewee relayed:

"Well my husband's a quantity surveyor, so he and I work together. I don't use other members of my family".

When initially asked about involving family or friends within their respective firms, the interviewees indicated that, while they had tended to limit the involvement of strong ties such as family and/or friends within their respective businesses, they relied significantly on the support of their spouses/partners to a greater extent, with general assistance on aspects relating to their professional expertise, as well as gaining access to a larger pool of networks:

"My partner is an Architect, so through him I know a lot of Architects as well".

In distinctly categorizing their informal networks, the interviewees have reflected the variances between their practical adoption of informal networks and the theorised implementation described in the literature, which hypothesises a distinct movement away from the collective adoption of strong ties as the business progresses from the emergence to the early growth stages of the organisational life cycle. This premise does not account for the distinct categorisation of strong ties and the extent to which this classification influences the manner in which these strong ties are incorporated within the business.

4.3.2 Formal Network Ties (Weak Ties)

The formal network discussion relayed by this study's research proposition theorises that during the early growth stage, firms adopt formal networks characterized by weak ties, with a high networking range and a low networking intensity.

The firms observed, over the course of this study, did not necessarily adhere to the requisite early growth stage of the organisational life cycle. A majority of these firms had been in operation for more than five years. In acknowledging this, the researcher posed this area of the discussion in a generic manner that would enable a uniform analysis of the acquired responses. The question posed, sought to examine the "current" network composition of the interviewees, in order to determine whether the networks comprised predominantly strong or weak ties. Despite the fact that the operating stages tended to differ from firm to firm, the responses were all perceived as equally pertinent and were vital in providing an illustrative account, by emphasizing that, in spite of the firm's age or number of operating years, the change in network composition from strong ties to weak ties directly relates to the built environment professional's individual networking behaviour. The quotation included below provides an account of the manner in which this interviewee's network composition has transformed:

"It depends on how I guess your business develops, because initially when you start out, you know no one, you're too happy to speak to anyone or meet anyone, or connect with anyone, because you need the work, you need to establish yourself, you need to get out there. Whereas once you become more, like bigger and more

established, it, I mean it does, it changes totally. I mean I know for example that some of the people I started out with and it's through no specific intention, it just happened that way - I don't work with them at all anymore. Where I started out with zero, I've got a pretty big network now, of people in the industry that I know, associate with, can call up to talk about anything you know. It's definitely totally changed".

The interviewees were asked to identify the individuals and/or professionals that currently provide them with any required business support. While this question was open-ended, it encouraged the interviewees to give consideration to whom they relied upon for essential business support, which was also left unspecified. The answers were generally varied. It was interesting to note that the responses mainly related to other built environment professionals that the interviewees perceived as being vital in the apportionment of projects within the built environment. Some of the interviewees mentioned other professionals/consultants within the built environment as being their main source of business support, but most described the client as playing a pivotal role from the perspective of accessing work and unlocking key business opportunities:

"The biggest form of support is trying to get clients. And at the time that we started, there were one or two clients in organisations like the City Council, who liked what we were trying to do and supported us with small projects to get us started. I mean anyone will tell you that the most critical thing is to get the deal flow, get the clients, get the projects. And that helped us... In a business sense, there're various tiers of support that are required, for instance you need legal support, accounting support, technical support on the projects. But most importantly again, is the support of your clients, you know, the people who have faith in you to appoint you to look after their multi-million rand projects. That's the most crucial aspect for us, is getting that right".

All of the interviewees demonstrated that their current entrepreneurial networks were professional and mainly consisted of weak ties. A subset of the interviewees that had

incorporated their strong ties, particularly in the form of the above-described partner/spousal support, emphasized that they were continuously developing their formal networks, and did not consider their strong and weak ties as operating at odds with each other. Instead, they viewed this integration as being advantageous.

From the data, two main formal network support sources were identified, namely; professional networks from business relationships; and networking organisations, which offered platforms for the interviewees to meet with other professionals in various industries. The described networking organisations differed in scale and ranged from well-known national organisations, to intimate organisations, which in certain instances were personally organised by the built environment professionals.

Professional Networks

Professional networks are the business relationships established with other professionals or clients that are influential in assisting the built environment professional to acquire work, or are fundamental in determining whether the built environment professional is allocated work. Interviewees differentiated between their professional networks based on the nature of the relationship shared with their network members. Most interviewees stated that while certain relationships tended to be extremely formal and 'business-like', particularly with the corporate clients in positions to assemble project teams and allocate the work, others were less formal and more relaxed. Interestingly, in certain instances, it was these network members that tended to develop into becoming members of the entrepreneur's personal/social network, with whom they would gladly socialize with outside the confines of the project or work situation. Not all of the interviewees shared this view, particularly, of integrating professional networks into their personal/social networks. The interviewees had the following to say on the subject of formal and business-like professional networks:

"There are some, that the business relationship is very defined, and you don't sort of move further on to a friendship at all, and it's more formal, and therefore

you sort of don't necessarily contact them easily. But it might be for the sake of not irritating someone. If someone is in a position to dish out work, if they're somebody in a big organisation, like Sanlam or Old Mutual, they are there; you know you'll get your chance, because they have to spread the work to other people. You don't want to seem like you're constantly trying to rattle their cage. You just would be a little bit hesitant to annoy them, you wait until the time's right and then you approach them. It's very business-like, it's not too casual a relationship".

Networking Organisations

Networking organisations offer an opportunity through which the built environment professional is able to meet with other professionals in various industries, who can enable access to a wider network, or to work opportunities. These are professional networking platforms, which can range in scale and size from formally organised entities operating nationally or internationally etc., to informal groups with an intimate undertone, where emphasis is squarely-placed on socialising more than anything else. Included below are several quotations that portray some of the interviewees' perspectives on the subject of networking organisations:

"I was involved in a number of organisations. I was involved in the Association of South African Quantity Surveyors, which helped to profile me, I was on the committee, and then I was involved in SABTACa: South African Black Technical and Allied Careers. And through the work that we did in those organisations, my exposure to people was a lot broader than what it would normally have been".

Another interviewee attested to the following:

"I can tell you a huge advantage for me is that I've been the chairperson of the Western Cape chapter for the last 4 years. I'm actually resigning this year, somebody else is taking over, and I was also on the APEs [Architects, Planners

and Engineers] committee, I was the treasurer there for 3 years, and I made a huge network of other consultants through being on those committees".

Another interviewee had the following to add:

"There is a business group that I belong to. It's a group of business women who meet every month or two months, depending on how busy we are. And we keep in touch via email. Then we have another group that meet here the last Friday of every month, and we're just a group of architects. It's the people who work here in the office, and some that we know, we invite. And we have a talk, which is part of our CPD [Continuing Professional Development] points, you know we need points in order to remain in practice, and this is part of that program, and I actually initiated it".

The interviewees relayed that belonging to a networking organisation is beneficial in providing them the platform of not only meeting with fellow colleagues, but also with keeping them up to date with what is happening within the built environment industry. The interviewees acknowledged that they are not autonomous professionals working in isolation, but are instead, invariably influenced by the external environment within which they operate:

"Being small you're not necessarily exposed to what's happening out there you know, so whenever I pick up a phone to a professional, I'm always having a chat with them about: What's the state of the economy? How's their business going? Where are they securing work? You interact like that".

The interviewed professionals that were involved with networking organisations, each had different reasons for this undertaking. The professionals that adopted an active approach to networking, considered their involvement in networking organisations as an ideal platform whereby they could unlock potential opportunities through meeting with beneficial resource-holders, whereas those

adopting a more passive approach to their networking, tended to be members of networking organisations more in obligation to fulfil prerequisite professional requirements such as CPD, required by regulatory bodies, or simply just to engage with fellow colleagues, to keep informed of developments within the industry. The statement below reflects an interviewee's involvement in networking organisations and particularly the attendance of seminars, by revealing a slight disinterest, evident by the use of the word "stuff" to depict the prerequisite seminar attendance:

"Well you have to, because of the point system, the continual professional CPD points, where you have to do a certain amount of that stuff".

In distinctly categorizing their formal networks, the built environment professionals interviewed have revealed that the continued development of their businesses, as well as their own individual growth in experience within the industry, has resulted in an expansion of their respective networks, particularly in terms of the strategic relationships formulated with other built environment professionals. The significance of the interviewees' involvement in networking organisations was viewed as beneficial in terms of the access and exposure derived from a wider network complement. This practice was, however, not unanimously favoured by all of the interviewees, with some opting not to involve themselves in networking organisations any more than the minimum required by their governing statutory bodies, conveying once again, the individualism of networking behaviour and the different perspectives on incorporating networks within the firm.

4.3.3 Integrating Formal and Informal Networks

The integration of formal and informal networks is an emerging discussion that is embedded in the data. In certain respects, interviewees did not wholly isolate the relationships with their network members by classifying them in distinct groupings; instead, the barrier purported to exist between their personal and professional networks, was occasionally nuanced. This integration was found to have occurred in either of the following two manners: Integration of the personal network into the professional network, and/or vice versa.

Integration of personal networks into professional networks

This network integration was identified as having occurred in instances when the entrepreneur would have started in the industry or profession with a solid business support base from their strong ties, where these ties were their close family and/or spouses, their friends in the same profession, or from their time at university, that would have formed the foundation of their source of business support over the years in the industry. An account of the value that has been created by integrating the interviewees' personal networks into their professional networks is evident in the quotation below:

"The people I met in my time at university have remained the core going through. Those are the people I studied with, played football with, socialised with. And ironically, 20 years later, are the people I'm doing business with".

Another interviewee added:

"A lot of my friends studied Engineering, or if they didn't study engineering we did sort of sport together and things like that at varsity, so those are my friends, and the networks definitely intersect, though, obviously from the engineering side there's quite a lot of intersection."

The above-included quotations reflect the interviewees' perspectives in so far as their integration of personal networks into professional networks. It is duly noted that not all of the interviewees shared this opinion or implemented this practice; their views have been captured in the discussion to follow which addresses the second form of network integration observed during the course of the undertaken data analysis.

Integration of professional networks into personal networks

This network integration relates to the instance in which the interviewees incorporated their professional networks into their personal networks. These

professional networks were primarily identified as the colleagues they had met from the various projects they had been involved in over the duration of their respective careers. This essentially involved the integration of their weak ties into their strong ties:

"I've got some very good friends now. There's nothing quite like struggling on a very difficult job together and getting through it. It builds a sense of camaraderie. Our job as Project Managers is partly to build a team spirit, and togetherness, around the pursuit of the same objective, which is to deliver the project. And sometimes in the process you develop trust relationships and you become friends. That happens a lot".

This interviewee relayed how some of their clients, had in turn become personal and trusted associates:

"Some of the houses we've built for clients who are overseas are left empty for their use over Christmas or Easter, so we manage them, we become personal, trusted friends, if you like. We phone each other; maybe we get a ticket to Spain: 'Come over for the week'. That sort of thing is actually very nice, a lovely way to do business".

Some interviewees were rather doubtful of integrating their professional and personal networks in any form. The below-stated quotation describes how one's business and personal life should be kept separate in all respects:

"You don't do business with family and very good friends, because you don't end up being good friends. Family you can't get rid of, keep the two separate".

This section has documented the discussion involving formal and informal networks, through examining the strong and weak ties inherent within these networks. The observations imparted by this section revealed the interviewees' perspectives on the prevalence of strong and weak ties within their individual network spheres, illustrating

that network ties are not uniformly considered and adopted by the interviewed professionals. The data revealed the intricacy surrounding the classification and categorization of the network ties. Furthermore, it has been noted that the implementation of these ties within the respective firms under observation invariably related to the entrepreneur's own networking propensity, where the network composition considered in terms of the combination between strong ties and weak ties, did not necessarily relate to the businesses age and/or life cycle positioning, therefore challenging the assertions made by the literature. The following section considers the aspect of network range.

4.3.4 Network Range

The variable of network range relates to the entrepreneur's network size. The propositions presented on this subject state that emergent firms adopt a low network range, whereas early growth firms adopt a high network range. In examining this query, interviewees were asked to provide an account of the manner in which the size of their respective networks had changed since they had first begun their business operations. The questions were once again posed in a generic manner in a bid to instigate an easier recollection of the requested business intervals, by simply juxtaposing the "initial/emerging" period with the "current" operating period. To start off with the interviewees were asked to convey the number of individuals that comprised their business networks during their respective emerging business stages:

"Before I started out on my own, I had zero networks, because I, I mean I had literally just got back to South Africa, I'd never lived in Cape Town before, We hardly had friends here because we just didn't you know... it was a new city. I knew a couple of people that I worked with for the three or four months that I worked with the contractor, but nothing as such. I would say pretty much zero networks".

The question leading from the above, then sought to generate a comparison by asking the interviewees to chronicle how their network size had changed over the business duration, in effect prompting the interviewees to consider their network range over the

course of their business life-span thus far. The same interviewee quoted directly above, asserted:

"Where I started out with zero, I've got a pretty big network now, of people in the industry that I know, associate with, can call up to talk about anything you know, it's definitely totally changed".

It was duly noted that during the interviews most of the interviewees had difficulty in providing an accurate description of their network range in exact numbers, at any given point, more so during the emerging stages of the firm's life. This consequently resulted in the interviewees providing approximations on the subject. They could however acknowledge the manner in which their network range had varied from inception to the current operating stage of their respective business ventures. There was a small subset of interviewees who had not recorded an increase in the network range since the business inception. When asked about this, the following was stated:

"I haven't made it change. If you want to aggressively market yourself you have to think of everybody, like Transnet and the Airports Company, and go and actually see them".

In this instance, the interviewee highlights the degree of influence they have on the manner in which their network develops. This interviewee was fully conscious of the control they could exert over the development of their network, and could even relate the preliminary strategy they would exert if they were looking to develop a broader range of networks. Some of the interviewees underlined that while their network ranges may have been vast, the number of network members, upon which they currently relied for business and other related aspects, was considerably smaller and was in fact more closely-knit. This assertion revealed that within an entrepreneur's extensive and continuously developing professional network range there exists a more intimate network range comprising of key professional protagonists. One could, therefore, say

that within a pool of weak ties, there exists a smaller, a more cohesive group of network members within it.

"I mean there are hundreds of people that you meet. But there's a smaller group that's your core network of people that you can deal with on a day to day basis".

Another interviewee provided an account of the manner in which their network range had transformed over the duration of their business through providing a succinct description of all of the assertions made above:

"The day I started this business, I was new in Cape Town, I didn't know anybody, I didn't know anything. Now I have a contact list of about 550 names. That contact list of 550 names, I have if not a strong personal relationship I can phone every one of those people, they know who I am. So over 12 years, I've made contact with about 550 people and put them on my contact list, and I can call them and they can call me. It still doesn't generate business. So, in a way, my name list, my contact list is the basis of my network, but my actual network is about 10 individuals off that list, who are co-professionals, with whom I have mutual trust. That's how I'd describe my network. There's a huge list of names, and very very few who I actually have a relationship with".

This section has presented a discussion on the built environment professionals' network range. A majority of the interviewees reflected that they had entered into their respective businesses with a pre-established network range. This was beneficial in providing them with the essential business support structures required primarily during the emerging stages of their business operations; therefore it is vital to note that not all of the interviewed professionals began their business operations with the same resources availed to them. The interviewees, who had depicted their current network range as being vast and widespread, had made a further intra-network distinction between their various network members, therefore, indicating the categorization within a single network range. The following section addresses the topic of network intensity.

4.3.5 Network Intensity

Network intensity considers the frequency of communication between the entrepreneur and their network. The proposition presented on this topic of discussion states that emergent firms adopt high network intensity, while early growth firms implement low network intensity. In evaluating this theorised assertion, interviewees were asked to detail the frequency of their communication with their network members, as well to provide perspective on how they felt their network communication had changed from their business inception to its current operating position. A majority of the interviewees indicated that during the period that their businesses were still emerging, communication was at the fore of their agenda. One interviewee outlined:

“When you start out, you know no one, you're too happy to speak to anyone or meet anyone, or connect with anyone, because you need the work, you need to establish yourself, you need to get out there”.

Another interviewee disclosed:

“In setting a business up you're trying to contact people all the time for work”.

In conveying the change in network intensity over the duration of their respective business endeavours, the interviewees emphasized that their current network intensity is largely driven by whom they are working with on specific projects at any given point in time. Most of the interviewees reflected that when a specific project had come to its completion, their network intensity had tended to dissipate. The interviewees stated that it required a concerted effort on their part to stay in touch with the network relationships built over the projects they had been involved in. The interviewees cited project involvement as well the increase in network range as being the main elements which had attributed to the decreased communication levels with some quarters of their overall network:

"If you're dealing with one or two projects that involve a few individuals closely, you'll have the odd phone call chat to this person and that person, then it shifts again, you're now working on a new project, you're working with these people, and now you're talking a bit less to those people".

The interviewees indicated that over the years, the resultant increase in project involvement and the magnitude of the projects themselves had been influential in their introduction to additional built environment professionals, who in certain instances would then be incorporated into the interviewees' networks:

"You know you do 1 project and then you do 3, and by the time you've done 30, your network has grown, because those 30 people know 30 people, and those people know people".

When the projects would come to an end, the interviewees indicated that the communication with some of the network had gradually declined and in certain instances or had been lost altogether:

"Sometimes it dies down, but one tries to keep in contact."

In recognising this limitation, an interviewee has devised a simple yet effective method to ensure that they do not lose contact with any segment of their network, irrespective of whether they are currently working with them on a given project or not:

"Obviously when you're working on a project you see each other all the time, but as you move to different projects, you want to maintain contact with people you've previously worked with. What I usually do is every now and then, and I'm not always that good about it, is I'd send out like some type of little newsletter, just something generic to say 'this is what we're busy doing work, this is where we are', that type of thing, just so that people sort of at least know what you're up to generally. And then often like somebody that you haven't maybe spoken to in a couple of months, would

reply and say ‘geez how are you, what’s up?’ and we’d phone and talk about business and that type of thing”.

A subset of the interviewees indicated that their network intensity tended to vary in accordance with different identifiable segments of the network. One such interviewee gave a depiction of this:

“There’re ebbs and flow, right. So the people in my targeted network at the moment I make it a point to at least speak with them fortnightly. Those are the ones in my target network. Then of course existing clients, you have to keep in touch with, and I’d say I’ll have a conversation with my existing clients either weekly or fortnightly you know, at least. Prospective targets, the ones you’re chasing, you might harass them a bit, trying to get an interview, trying to get this”.

This approach to network intensity was, however, not unanimously incorporated, as is evident from the statement below. This interviewee reflects that they have not had to alter their communication approach, or to maintain any kind of schedule when liaising with their network members. They felt that adopting such a stance devalued the significance of the relationship:

“There is no programme to kind of maintain contact. Relationships for me are built on a meaningful basis, and if a relationship is meaningful, the fact that I don’t talk to somebody for two years doesn’t mean that it’s still not meaningful – because I can’t think of a single instance today where I’ve had relationships with anybody over any length of time where I’ve felt that I’ve had to keep up the relationship. As far as I’m concerned the relationship is established and I may talk to him now and I may not talk to him for three years, but in three years time if I phone him, from my perspective, that relationship is just as strong as it was. So there’s no programme for keeping on the relationships”.

This section on network intensity has focused on the network communication frequency as well as the communication approach adopted by the interviewed built environment professionals. The discussion has acknowledged that the network intensity in emergent firms has tended to be high, mainly attributed to the built environment professionals' rigorous efforts of connecting and communicating more with their network in the pursuit of possible leads to new projects, amongst other factors. The discussion also addressed the change in network intensity occurring in the advent of an increasingly established firm, at which point it was described that the increase in network range had resulted in the decrease in network intensity with some quarters of the overall network, mainly attributed to project involvement progression. The section to follow addresses the subject of strategic alliances with influential network members.

4.3.6 Strategic Alliances

The discussion on strategic alliances relates to the aspect of building relationships with key resource-holders on the basis of trust and mutual benefit. This area of discussion was introduced by the interviewees, who noted that the networks they regarded as beneficial, were ones which were not only mutually rewarding, but in which trust was ingrained. These were the characteristics that the interviewees identified as constituting a functional network. The interviewees revealed that their strategic alliances had not been arbitrarily formed, but were instead, carefully moulded and meticulously nurtured over time:

"The entire professional industry is based on trust relationships, which are built up over time".

Another interviewee had the following to add on the subject:

"People who do big property developments; most times they're worried about the commercial dimensions of the project, and they need to have confidence in the professionals who are going to deliver any service, whether it's an architect, or an engineer, or it's a security consultant, or it's somebody who does market

demographics and so on – these relationships are usually built up over a very, very long time, and it all arises out of confidence over many, many projects”.

The interviewees revealed that the formation of strategic alliances is paramount to ensuring longevity within the built environment. The merits of developing trust relations with key professionals were revealed by the interviewees, who described that developing essential trust relations had the propensity of leading to the acquisition of beneficial information as well as lucrative job prospects:

“The business networks are relationship driven. And the reason I say this is because it’s not possible to place an advert in the paper and think somebody’s going to phone you up and give you a R 100 million shopping centre. It actually doesn’t work like that at all”.

The interviews revealed the existence of a relationship chain between the individual members of a professional team. One interviewee aptly notes that built environment professionals working in project teams rely on each other, and in so doing, perform their respective specialised functions with the utmost efficiency:

“The building industry works in a team, you can’t really be without them”.

All of the professionals interviewed portrayed whom they viewed as forming an integral part of their strategic alliance. In a bid to convey a meaningful description of the data, the interviewees’ professions have been disclosed. While this depiction in no way tries to justify the findings to the entire spectrum of built environment professionals, it draws attention to the strategic relationship dynamics of the built environment professionals, particularly viewing project procurement within the private sector, discussed in section 4.4.1. The interviewees have been segmented into their professions and therein provide their individual opinions. This discussion is kept concise by only relaying the quotations which have succinctly described the entrepreneur’s strategic alliances.

Quantity Surveyors

The opinion expressed below is representative of the views of the Quantity Surveyors interviewed as a description of their strategic alliances:

"There's basically a circle of architects that I not only count on, but that I know we've got a good relationship and if they've got clients, coz clients typically would always first approach the architect who they meet to usually make a recommendation on the rest of the professional team. So it's important, I think for QSs, to have a relationship with the architect sorted out, because that's typically where you get your work. It's not often that a client would first go to the QS before he's even got the architect. It happens, occasionally, but it's quite rare".

Another interviewee expressed the following:

We work with a bunch of architects that we have been working with for a number of years. Most of the jobs are actually from references you know, from one job to another one. This architect might be impressed with the service and they'll get us involved in the next one".

Architects

The Architects interviewed delineated the nature of their strategic alliances as follows:

"There're certain individuals you just build a high trust relationship with, you know what their skills are and when you need them you call them, and when you realise that over the years, every year or two you get a call from the same guy, you, know you're one of his trusted network members...I out-source myself to others frequently. I work for other Architects, a lot".

Another interviewee indicated the following:

"I have also done further studies and specialisations, in certain aspects like going into the green building, green star rating, and then you can start promoting yourself to fellow practitioners, because you can provide a service they can't so again the network grows. So my network is now currently with other architects, firstly as a help for when they need someone to come in and assist with something or as a specialist in a certain field, like the green star systems".

Project Managers

The interviewed Project Managers provided some perspective on their strategic alliances, documented as follows:

"The relationships that I have are actually directly with developers and financial institutions, and people like that who are investing in big property. So I don't really rely on other people to give me work or to refer for work. It has happened, it does happen from time to time, and, but it's not a frequent occurrence".

Another interviewee stated the following:

"I study trends in the economy, and the likely growth areas that will emerge over a 3 to 5 year period. I look at the companies that are active in those areas, and it's amazing once you start doing searches on the companies, you almost always find somebody you know, either involved in the company or who knows somebody else in the company. So you've got to do your research, I believe, you've got to develop a strategy, and flowing out of your strategy comes your targets and then identifying the key people who can assist you in unlocking those opportunities".

Structural Engineer

The interviewed Structural Engineer had the following to say on the subject:

We get our work through architects very often, they are the first meeting with the client, and they very often are the ones who are in the position to sort of set up the team. So, definitely architects, number 1, and quantity surveyors, because once a team starts getting going on a project, the architects, the quantity surveyor and the engineer work closely together”.

Property Developer

The interviewed Property Developer added the following to the discussion:

“When you build up networks you’ve gotta have people who are responsive, who understand you are trying to create relationships. And not doing one off deals. Networking I think is essentially for professionals. For developers it doesn’t do any harm, but you can be very independent and very arrogant and very difficult if you want to be, because you’re controlling the purse-strings. But ideally you want to always be conciliatory and have a happy environment”.

This section has described the built environment professionals’ perspectives on strategic alliances. The interviewees have provided a description of their strategic alliances by delineating which professionals have played an integral role in assisting them to unlock key opportunities for their built environment owner-managed SME firms. This area of discussion has depicted the inter-connected nature of professionals within the built environment, who tend to work in project teams, and in so doing, rely on each other to perform their respective specialised functions with the utmost efficiency. The formation of strategic alliances is paramount to ensuring longevity within the built environment. These strategic alliances are based on trust and mutual benefit, and are carefully moulded and meticulously nurtured over time. Developing these essential trust relations has the propensity of leading to the acquisition of beneficial information as well as lucrative job prospects.

4.3.7 Barriers to Network Access

This area of discussion considers some of the challenges experienced by the built environment professional with respect to restricted network access. This discussion was

introduced by a subset of the interviewees, who revealed the difficulties they had experienced in their attempts to access beneficial resources. These restrictions were particularly hard-felt in the instances where the built environment professionals were operating emergent SME firms or where they were looking to access a new market with the aim of expanding their business practices. Several interviewees disclosed the challenges experienced at varying business intervals, particularly when trying to access a functional network base, essential in providing the required support structures that anchor emergent firms and direct progressive firms to growth opportunities. One such interviewee shared some of the difficulties they had experienced in their efforts to access a beneficial network base:

“We have to try and build a network of wealthy people, coz it’s only wealthy people who are our clients. And that’s where my business has had to go completely out of that market and find a niche working for other Architects, because I don’t generally have any access whatsoever, to those networks. Those networks are the Yacht Clubs, all the expensive places where people go with a lot of money and spend a lot of money, and I can’t do that. I can’t go to posh restaurants and Yacht Clubs, and buy yachts, and go scuba diving in Mauritius and all those things that the rich and wealthy do. So I can’t build those networks”.

Another area where this network preclusion exists is in the formation of serial project teams that work on several projects as a unit. While this position is ideal for those within the team, the same cannot be said for the professionals on the periphery, who are effectively excluded from involvement in ensuing projects; this interviewee disclosed:

“We’ve got an established relationship from the engineer to the land surveyor, virtually. We keep the team together, and we go from each project to the next, and it’s typically that team with that architect and engineer that would then, along with me, would work on other projects around Cape Town if it came up. We’ve got such a good relationship that we’re happy to work with each other on other projects. The problem with that is I guess to some extent it’s good if you’re in that position, but

other people would also like to be in that position, which means that as a QS, you may never get an opportunity to work with certain other architects, because they will already have their team. So, if that is the case, it's quite difficult to expand, if everyone already has a team".

Another interviewee added to the discussion on project involvement by stating:

"The earlier you get involved the better it is because you can involve the people you've worked with before; the people you trust. I'm not saying to the exclusion of new people, because you must be building up new people, but you're looking to involve key members".

An interviewee, who acknowledges the creation of barriers, indicates their perspective:

"I don't hold people at a distance. I don't create barriers in my own relationships with people. People very often create their barriers, but I don't, I'm very careful not to do that".

This section has addressed the tangential issue of barriers to network access, through conveying instances in which subset interviewees had experienced preclusion from accessing beneficial networks due to the identified barriers to entry. This discussion outlines some of the challenges experienced by the built environment professionals with respect to instances in which they have been precluded from developing essential networks. As stated, this topic of discussion was introduced by subset interviewees, who revealed the difficulties they had experienced in their attempts to access beneficial resources.

4.3.8 Network Evolution

Following the discussion on the change in network composition as characterised by the three variables: network ties, network range and networking intensity, an analysis of network evolution is warranted. The interviewees were asked to describe how their networks had evolved, from their SMEs' inception to its current operating standpoint.

This was aimed at getting the interviewees to give an account of how their networks had changed over time, from their own individual experiences. As expected, the interviewees each had different perspectives on the subject. One interviewee, whose network composition had not undergone any major changes since they had initiated their business, indicated the following:

I would say I've still got the same network base, but I need to expand it. At the moment, where I stand now I'm quite happy with my network base, but hopefully things are going to change and, and it might grow.

Another interviewee has stated that their network has only changed in so far as project involvement, but that the relationships shared with the members of their network have remained the same:

"They've just changed. The personnel have changed. That's all. I think the actual relationship between myself for instance and the network people, has always been the same".

Another interviewee reflects upon their network evolution as follows:

"It's always gonna change, it's always gonna change from year to year. There will always kind of be new people coming in, other people moving on or moving away. So it's really an ever-changing thing".

In the statement below, the interviewee describes the manner in which their network has changed over time, stating that it has grown in a 'valuable-peopled contact'. This is with reference to the quality and value of the network relationships developed:

"It's grown. It's grown in stature, it's grown in quality, it's grown in a valuable peopled-contact; I mean I just know more and more. And it's grown in terms of the people that I work with".

This interviewee provides a holistic account of the manner in which their networks have evolved over their entire business duration:

“Well essentially they evolved, they evolved from a core group of friends, socialising, doing stuff that we do at UCT and that sort of stuff, and then for a period of time, involved building new networks through cold calling and getting work. But the most valuable networks have now come to be those same original networks that we built in our tertiary institution time, you know. Those networks are absolutely valuable. Not only because they were social, but the people actually have a genuine interest in seeing you succeed. They share more than just a professional interest”.

The built environment professionals have relayed a discussion on how their networks have evolved from SME firm inception to the current operating standpoint. This brief discussion was aimed at getting the professionals to give an account of how their networks had changed over time, from their own individual experiences. Different interviewees had different perspectives on how their networks had changed. While some reflected that their networks had changed in terms of the personnel that they had worked with on various projects, others could attest to a more holistic change in the quality and value of the network relationships developed.

The discussion has highlighted the non-static nature of networks. This is in line with the assertion that entrepreneurial networks evolve in relation to the firm’s changing resource needs (Hite and Hesterly 2001). The section to follow examines the owner-managed SME firms to a greater extent, by considering the built environment professionals’ business development outlook.

4.4 Business Development Approach

The discussion on networks has described the networking behaviour of the interviewed built environment professionals, as well as their individual perspectives on networking. This current discussion examines the interviewees’ desired business outcomes, by taking into account how their SMEs have developed over their respective operating periods. As anticipated the interviewees each had distinct perspectives and ambitions for their

businesses. While some indicated their satisfaction with their current state of operations, others were trying to chart avenues for business growth, through proactively seeking out opportunities and devising strategies that would yield further growth prospects. Those that expressed satisfaction with the current operating level of their businesses indicated a desire to remain at their current business level for various reasons. An interviewee intimated that the main reason for having started a small business in the first place was for it to remain small, but also reviewed the downfall of being a small enterprise:

"I would never want to get big, coz the whole idea of starting a small company is to stay small, but then again if you're too small people sort of view you as you can only handle projects up to a certain value, which is not necessarily the case. You need to be able to grow".

Another interviewee indicated that their SME firm was mainly to augment the income they were already receiving from their lecturing role at the University, describing their business as a conduit through which they could keep in touch with other professional colleagues within the industry, this in elaboration of their desire to remain at their current operating business level:

"It was never a full-time, full blown private practice. It was always more as additional income to the University salary, than anything else, and to keep contacts within the industry. So it was not a full-blown, going all out practice. It was sort of half-half between academia and the profession".

Another interviewee emphasized that she had tailor-made her business to specifically suit her schedule as a mother and, further, that the business had been meticulously structured in a manner that would enable her to infuse the equally pivotal roles of being a mother and a professional in the built environment industry.

"We are a small practice; we've always had tons of work. It's always been profitable. It's more how much I want to do, which is perfect. I've been doing this a long time,

you know, in a very gentle way. I've never had any ambition to make it any bigger...I don't have a huge amount of capacity for work and I want to be with my children in the afternoon, so I don't really want it to change, it works fine for me. It's small-scale, pays my bills, it allows me to get involved in the industry and do what I want to do in the afternoon, which isn't architecture".

The interviewees did not share the same desires for their business outcomes; some were intent on the pursuit of business growth. The built environment professionals adopting this stance proudly communicated their business growth prospects. They indicated their desire to advance their SMEs and unearth new markets.

"I always try to kind of keep the options open and do a variety of projects. That's a lot more interesting than working on exactly the same type of thing over and over again. So I do from like high end residential stuff. I also do smaller jobs like alterations and additions for clients because that has, in almost all cases always led to bigger jobs. So I don't wanna turn down the small clients just because it's an irritating little job, because almost in all instances it's been a recommendation for a much larger project".

One interviewee indicated the following:

"I'm quite happy in a way, that I think I've got a broad enough field. I find it very exciting looking for work. I know most Quantity Surveyors are not seen like that, but I don't feel threatened or scared of doing it at all".

Another interviewee illustrated how influential their vast network had been in the creation of further channels of business growth:

"We're busy establishing a Joburg office this year. And again, it's because of the networks that we've developed up there. We're registered on all the databases of companies that we know do project work. We are active in SAPOA, the South African

Property Owner's Association. That's where all the listed property guys, the pension fund properties are and we do a lot of networking with them. On completion of projects we profile our projects, you know, through PR. So when a project is successfully completed and launched, we'll run a PR campaign around it in newspapers in public media. What we've always wanted to do is shift from communicating about our potential to communicating about our results".

This section has outlined some of the divergent business motivations and business development approaches adopted by the interviewed built environment professionals. The discussion has illustrated the built environment professionals each had different business development prospects. The sections that follow discuss project procurement as well as the marketing strategy adopted by the interviewees, as a means of generating exposure to the industry-related services they offer.

4.4.1 Project Procurement

This section documents the manner in which the built environment professionals, observed over the course of this study, secure their involvement in the array of projects vital for the sustainability and longevity of their SMEs. The interviewees were simply asked to indicate how they had gone about procuring work. A majority revealed that in the built environment private sector, work was mainly sourced through referrals, essentially through word of mouth:

"Your target is a referral. And how do you get that? Yes, you build a network of people".

A small subset of the interviewees distinguished between two predominant sectors through which they had secured their projects within the built environment: the Government sector and the private sector. A majority of the interviewees had solely procured work from the private sector. Those that had sought to procure work from Government recounted their experiences:

"I tendered for so much work in teams. That was also good for networking because I approached quite a few Architects to tender on projects. I think we must have done about 50 in two years and not one did we win! It was the most depressing thing, because it takes up a huge amount of your time, and I had trained up a member of the staff because it's masses of paperwork".

An interviewee who had successfully procured project work from the Government stated the following:

"On the Government side we do a lot of tendering, Parastatals and what have you, and if you've previously had an appointment and you've done it well, then the referral with those client representatives you had is much easier".

The interviewees uniformly regarded the private sector as the primary sector from which to procure work. Project procurement in this sector does however come with certain challenges:

"Cold calling in the profession just does not work. I noticed they still use the professionals that they've always used, and so it's very difficult to get in, especially if you start on your own".

The built environment professionals indicated that they had progressed from project to project based on the referrals they had received from either their colleagues within the industry or the clients who were the project beneficiaries:

"Most of the jobs are actually from references you know, from one job to another one. And this architect might be impressed with the service and they'll get us involved in the next one, and— Ja that's really through word of mouth I suppose. I think in the eight years, there's maybe been a phone call or two phone calls from people out there just looking for a quantity surveyor, but mostly it's referrals.

The statement below emphasizes the importance of reputation. The interviewee has also attributed their project procurement to their industry colleagues, as well as their previous clientele:

"Most of my work is referred to me by other architects, well I'd say 50% is from other architects, and the other 50% is from clients referring me, previous clients. So until you've built up some kind of reputation, I think it's very difficult to get work. More so than a website, or any other marketing, because you know, professional architects may not advertise. So I've actually put together a website now, but I haven't had anyone phone me off it. Well, they need to know about you to go and find you first, so it's word of mouth, it all comes back down to word of mouth".

Several interviewees indicated the downfall sometimes experienced when relying solely on word of mouth as the key implemented project procurement strategy:

"We don't actually actively procure work. We do rely on referrals. It's failing because when things dip a bit then you suddenly sort of suddenly say 'Well, where's the work coming from?' - Instead of actively being out there and marketing".

This section has addressed the aspect of project procurement, and has sought to establish the manner in which professionals within the built environment procure their projects in the private sector as well as Government. An area of discussion that has emerged from the data, initiated by the interviewees, is marketing. While this has briefly been alluded to in some of the extracted quotations above; the section to follow focuses on this discussion, by presenting and outlining the interviewees' perspectives on the subject.

4.4.2 Perspectives on Marketing

Marketing is a concept that invokes different reactions from different individuals. While some may recognise a need for it, and emphasize its virtues as a necessity for the successful development of a business, others may not attribute such significance to it. The interviewed built environment professionals raised the aspect of marketing out of

their own volition. It was interesting to note that most of the interviewees related marketing and advertising to networking, particularly as a means of accelerating the establishment of essential networks. The interviewees considered the undertaking of any marketing or advertising practice as being tantamount to exploring business expansion avenues and exhibiting a desire to generate an increase in project procurement:

"If you're going to survive you have to market, and I'm fortunate in that I'm small with a small base of clients, because if you don't have enough clients, and you've got a big practice, you're actually are running a huge risk, especially if you're employing people and you're responsible for them".

This interviewee asserts the generic importance of marketing in business, however, some of the interviewees felt that in certain respects the marketing of specialised firms within the built environment may not necessarily yield any beneficial gains, and may instead, result in unnecessary expenditure both financially and in terms of the time dedicated to the marketing practice, which may be futile, lacking any assurance of its success:

"I would imagine that a lot of firms like us do have websites, we just didn't see that there was any benefit in it. We've occasionally put ads in some of the Civil Engineering magazines for instance, we've gone on to sort of the yellow pages type things, or Brabies or those sort of things, where you are a presence, but I don't really believe it brings much, I've never seen a correlation between spreading the word and getting more work and bringing in more projects. It's very much word of mouth. We've had tough times, we've had good times, but it would have probably been much better if we had found out how to market. You know, to be able to have marketing tools for small firms, like us, that we can believe in and that you know will bring the results- that would be a marvellous thing".

A majority of the interviewees held the above view with regards to the marketing of firms within the built environment. They asserted that the most efficient, cost-effective and guaranteed marketing practice within the built environment is word of mouth:

“Word of mouth is so important, word of mouth for work, word of mouth for quality of product, word of mouth for new trends; everything in our profession I find is word of mouth”.

Another interviewee trying to further elucidate and articulate the significance of word of mouth within the built environment industry provided this illustration:

“I’m an Architect. I’m not quite sure that it works exactly the same for Engineers and Quantity Surveyors, who are my colleagues in the industry, but as an Architect one has to first analyse your relationship with your typical client: What you need to understand is the clients are not often repeat clients. In my end of the market - in the small end, they come to get a house built, they’re gonna do that once in their life, they’re gonna spend the most amount of money they’ve ever spent in their life, this is their biggest moment financially. The person they’re gonna entrust with the design of their house, has to be somebody they trust very very highly. It’s like the woman choosing the Gynaecologist to deliver her baby. How does the Gynaecologist connect with the lady that’s going to have her baby? How does the Architect connect with the person who is going to build their house? You don’t know where this person is, you don’t know where they come from, you don’t know how to connect with them, you don’t know how much money they’ve got, how do you market that? There’s only one way. You get referred. You can’t market it, it’s impossible to market it. If you put adverts on the internet, in the newspapers, wherever you like you’re throwing your money away, it’s a complete and utter waste. People who are about to spend...do the biggest event in their lives do not do it by responding to adverts, they do it by asking their friends: who’s a trusted Architect?”

While this descriptive review captured the majority of the interviewees’ views, there were still professionals who valued the potential benefits that marketing could yield within their respective practices. Although not certain, some interviewees indicated that they had nothing to lose from implementing a marketing strategy. They were willing to employ different marketing media, in anticipation of the potential gain to be derived.

"The other thing is your branding. You know that every project has a project board? We take our project boards quite seriously, because when people are driving around, that is a visual representation of work in action, you know. We've developed our logo and branding such that it's recognisable. So when you walk or drive past a project board, our logo is recognisable. Those are the things which move us from being potential-nice-to-haves, to being operational, work-in-hand and people actually seeing, 'wow these guys are actually doing these projects'".

Several interviewees stated their desire to market, but highlighted the difficulties they were experiencing in allocating enough resources to conduct the required marketing activities and also meet the impending demands of their project work:

"It's kind of like six of one and half a dozen of another, where you wanna grow, but you can't grow without the marketing you know. And you would like to target the marketing but it's a bit difficult to go out and do the marketing, when you've got to sit and do the work, so it's kind of you're stuck between a rock and a hard place sometimes".

There were also those interviewees who equated the undertaking of a marketing practice, to looking for work within the industry. There were those who stated that they had not instituted any marketing practices within their firms as they had no need to seek out additional work:

"I'm at an age now where I don't want to expand my company. So I don't market, everything just comes to me".

Another interviewee sharing the same view concurred by stating:

"I've never really had to do marketing because I've always had enough work, to manage, that I can do. I've never really had a problem. Most of it is word of mouth type of stuff".

There are different perspectives surrounding the practice of marketing within the built environment. This section has highlighted some firsthand reviews from the interviewees, who have illustrated divergent opinions on the subject, perhaps disclosing an area warranting further research within the field. The section to follow observes how personality influences the built environment professional's business development and networking propensity.

4.5 Personality of the Entrepreneur

This section documents an area of the discussion that has emerged from the data. When considering the aspects of business development and networking behaviour discussed at length above, several professionals interviewed have indicated that their personalities and demeanour had somewhat inhibited them from networking and implementing active measures that could potentially confer avenues for business growth. A small subset of the interviewees indicated that they had not gone out of their way to network and had not adopted any measures to develop their business operations, expressing that they were passive about networking and seeking out avenues of business growth because of their distinctive nature:

"I'm much more sit-back and wait for the phone to ring. I'm not that proactive, so I just carry on doing the same. There are occasions when I will sit back and look through the files and think, 'Gosh I wonder what happened to that person? Let me, approach them'. I don't like doing it; it's not in my nature".

This has prompted an inquiry into the extent to which the personality of the entrepreneur influences their approach to networking and the manner in which their respective firms develop. This discussion clarifies some of the interviewees' distinct perspectives on networking and approaches to business development, by identifying how both the former and latter have been incorporated into their own respective business practices.

This interviewee provides their opinion of what they perceive as being the networking characteristics essential for a successful networker:

“You can work your butt off to find useful contacts and you try develop them, but there are some people who have this natural instinct. They’re social people, they move in the right social circles, they have a knack for remembering people’s names, what they do and what they’re good at and what their interests are, and they sort of naturally put people together, they invite them to dinner parties, they expose them to different circumstances, and it’s a lovely way to network”.

Another interviewee details a personal account of the success that they believe, can be derived out of being sociable and out-going, in effort to build the essential relationships required in a business environment.

“When I graduated, one of my co-students who is an Architect who now works in London; he’s got a practice in London. He did an MBA, and his MBA thesis was on marketing professionals. And when I read his thesis it was a complete turning point for me. I as a graduate student, I thought you could go and market professionals in a normal sort of marketing approach, and he pointed out in his thesis, this whole issue of the personal relationships. As a consequence, he and his wife, I had children at the time, it wasn’t easy for me, but he and his wife didn’t have children, and they would have a dinner every Friday night and invite people from the property industry. And within 2 or 3 years, he had a big practice. So that was the key issue, to build personal relationships with people of influence, is the way to market professionals”.

Some of the interviewees relayed that they had not considered themselves as ideal networkers, even indicating that they were not the right people to be interviewed on the subject. A significant proportion of the interviewees indicated that while they had made a concerted effort to network, they had experienced feelings of trepidation as to whether their efforts at being sociable and out-going were indeed substantial enough to suitably develop a functional entrepreneurial network support base. The section to follow discusses the firm age of the owner-managed SME firms observed.

4.6 The Firm Age

The literature notes that emergent firms relate to those that are aged between 0 and 3 months, whereas early growth firms are aged between 3 months and 42 months (Lester *et al.* 2008). Firm age is determined from the date of business registration. This discussion addresses the business intervals relayed by the research propositions.

Applying these distinct age categories to the current study has proved to be challenging, as the SMEs observed did not all adhere to the stages of the organisational life cycle described in the literature. The interviewees were asked to give an account of their firms during two distinct intervals of their existence, specifically the emerging stage, as well as their current operating stage, which as expected, varied from firm to firm. The researcher posed questions that made reference to firm age, in a “then” and “now” manner, which enabled all of the interviewees to recount their experiences within their current operating business, without biasing or categorising them in any manner. This essentially allowed each entrepreneur to narrate his or her own individual experience. The interviewees could recollect and aptly communicate the networking experiences they had encountered over the course of their business life, despite a majority of the interviewees experiencing difficulty in providing an accurate description of their networking range at any point of their firms’ existence.

The interviewed professionals explained the importance placed on experience and track record within the built environment industry. These interviewees have established themselves in the industry, both in terms of the number of years spent working for other firms, gaining the necessary experience and expertise, and also in terms of the entrepreneurial networks they have incorporated into their respective firms. The age of the firms operated by the built environment professionals was not representative of their extensive track record as well as the number of years of industry experience accumulated. In most instances, the built environment professionals interviewed were already operating their second, third or fourth formally registered entity within the industry. By only considering the firm’s age as a measure of its progression, the organisational life cycle “stage method”, therefore, does not adequately regard the

influence that the built environment professionals' resources have on their firm's progressive development.

4.7 Chapter Summary

This chapter has presented the research findings obtained from the fourteen semi-structured interviews conducted with the identified built environment professionals. The findings discussion began with an examination of the networking behaviour adopted by the interviewees. The sections thereafter included discussions on business development strategy, wherein aspects of project procurement and marketing were addressed. The largely emergent and allied subjects, the personality of the entrepreneur as well as the age of the firm, were also addressed. All of the examined areas of discussion considered various aspects of the research propositions. Areas of interest that were not initially considered by the researcher, but have emerged over the course of the data collection phase have also been presented. The discussion has examined the built environment professionals' entrepreneurial networks, and has also rendered a discussion on their owner-managed SME firms. The chapter to follow concludes the undertaken study and affords recommendations based on these observed findings.

CHAPTER 5: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion of the research findings, followed by conclusions and recommendations. The discussion begins with a restatement of the research objectives and propositions. The section thereafter discusses the research findings, which have been outlined in accordance with the main themes addressed by this study. This is then followed by a critical reflection of this entire research process. The chapter then extends recommendations on this study's findings and also presents recommendations for future research. The chapter concludes with a brief discussion on the intellectual merit and broad impacts of the research conclusions.

5.2 Research Objectives

In this study, the objectives are as follows:

1. To examine the entrepreneurial networks of South African built environment SME owner-managers.
2. To investigate the network composition adopted by the SME owner-managers during the emergent and early growth stages of the firm.

5.3 Research Propositions

1. Entrepreneurial networks evolve as firms progress from emergent to early growth stages.
2. Emergent firms adopt informal networks characterized by strong ties, with a high networking intensity and a low networking range.
3. Early growth firms adopt formal networks characterized by weak ties, with a low networking intensity and a high networking range.

5.4 Discussion of the Research Findings

This section presents a discussion on the main research findings of the current study. The sub-sections to follow are presented in a manner that address the research propositions and the research question, which has been re-stated below:

How does the entrepreneurial network composition of South African built environment professionals evolve as their owner-managed SME firms progress?

An analysis of the data revealed that the entrepreneurial network composition of the South African built environment owner-managed SME firms observed had not evolved in a particular set manner. This was mainly attributed to the individualism surrounding the propensity to build up the relationships constituting a network, as well as the differences in personality, ambition and business motivation, guiding the built environment professionals' firm progression strategies. This made it difficult to provide generic commentary on the entrepreneurial network evolution of South African built environment professionals, because each of the observed professionals applied different networking philosophies within their respective business practices, and their entrepreneurial network compositions did not necessarily adhere to the network evolution prescribed by the literature.

The discussion to follow presents the pertinent findings observed over the course of this study, beginning with a view of the networking behaviour of the built environment professionals. This discussion describes the main perspectives on networking activity, as observed from the data. Thereafter, a discussion on the network composition, as delineated by network ties, network range and network intensity, is presented. This is followed by a description of the evolution of entrepreneurial networks, as suggested by the data. The discussion on the research findings concludes with a view on firm development.

5.4.1 Networking Behaviour

The discussion on networking behaviour suggests that the process of building the relationships constituting a network is individualistic, guided predominantly by an individual's personality, ambition and business motivation. This view is in line with Burt *et al.*'s (1998) observation that the ability and willingness to establish network ties may differ amongst individuals. An analysis of the data illustrates how some of the built environment professionals had conceded that their personalities had somewhat curtailed them from implementing active networking measures that could have potentially conferred avenues for business growth, stating that they had not considered themselves as ideal networkers. Not all built environment professionals may be willing and active networkers, however, by not adopting a proactive approach to networking, these professionals may consequentially restrict their access to crucial resources (Neegard 2005). The data reveals how other built environment professionals had, in spite of making a concerted effort to network, experienced feelings of uncertainty as to whether their efforts at being sociable and out-going were indeed substantial enough to suitably develop a functional entrepreneurial network support base. Good social, interpersonal and communicative skills are integral to what constitutes a "good networker", as suggested by Baron and Markman (2000), who expressed that these characteristics are vital in securing the resources beneficial for the firm. Good social, interpersonal and communicative skills, may positively contribute to the entrepreneur's networking behaviour (Baron & Markman 2000).

Entrepreneurial Network Composition

Watson (2007) delineated three network characteristics: network ties, network range and network intensity, and classified networks as either formal or informal. The first component of this discussion addresses network ties, followed by a discussion on network range and network intensity.

Network Ties

The findings disclosed that some of the built environment professionals had entered into their respective businesses with a pre-established formal network, which was

beneficial in providing the essential support structures required primarily during the emerging stages of the observed SMEs. The findings reflected some differences between the practical adoption of informal networks and the theorised implementation described by Hite and Hesterly (2001), who hypothesise a distinct movement away from the collective adoption of strong ties as the firm progresses from emergence to early growth. Hite and Hesterly (2001) assert that when firms emerge, their networks comprise predominantly strong ties, which regard the identity of the network member, more than the specific economic function imparted. This perspective fails to consider an intermediary integration of both strong and weak ties, and furthermore, does not acknowledge the adoption of weak ties during the emerging stages of a firm's existence, or the continued reliance on strong ties in the later stages of a firm's life. An analysis of the data revealed that the built environment professionals that had integrated strong ties within their businesses, did not restrict the involvement of their informal networks to defined stages of their SMEs' development. The business support received from their strong ties, was mainly from those informal networks in the same profession, or in a position to get the built environment professionals more exposure to an identified opportunity.

An analysis of the data revealed that the built environment professionals' continuous growth in experience within the industry as well as their sustained firm development had resulted in an expansion of their formal networks, particularly in terms of the strategic relationships formed with other built environment professionals. The formal network discussion extended by the data closely resembled Hite and Hesterly's (2001) assertions that as firms progress into the early growth stage, the entrepreneur's networks evolve towards more calculative ties which provide access to beneficial resources for the firms. The findings illustrated this perspective, by revealing how the built environment professionals had tended towards a wider network base, a movement away from a limited range of networks, as their SMEs had continued to develop.

This study has not been able to relate the informal to formal network evolution to the precise stages of firm progression outlined by Hite and Hesterly (2001), however, the data has been able to illustrate a change in the built environment professionals' formal and informal network composition, over the entire administration of their respective businesses. While the observed network composition has not completely evolved in accordance to the description provided by Hite and Hesterly (2001), as a result of the built environment professionals' intermediary integration of both informal and formal networks, the data did reveal a resemblance to the described movement.

Network Range

An analysis of the data revealed that the built environment professionals had difficulty in providing an accurate description of their network range in exact numbers, at any point, more so during the emerging stages of their owner-managed SME firms. Instead, the built environment professionals were able to give a holistic account of how their network range had evolved over their business duration. This study has sought to examine the proposition that emergent firms adopt a low network range, whereas early growth firms adopt a high network range, an area of discussion introduced by Watson (2007).

The findings have shown that the built environment professionals had incorporated different network ranges within their owner-managed SME firms. While some professionals had started their businesses with a pre-established range of formal networks, others began their operations with minimal networks. This observation differs to the assertion made by Watson (2007) about emergent firms adopting a low networking range, which is not always valid, as seen from the data. Hite and Hesterly (2001) have described an entrepreneur as a resource co-ordinator and agent of the firm. Johannisson *et al.* (1994) have indicated that an entrepreneur extends his/her personal/social networks to the firm as their most valuable asset. The built environment professionals interviewed had accumulated numerous years of industry-related experience prior to establishing their firms. They, therefore, tended

to leverage from previous industry affiliations and extensive career experiences, thus integrating broader functional networks within their respective business endeavours.

Watson (2007) has indicated that network range ultimately depends on the key objectives of the entrepreneur, suggesting that if the primary objective is rapid growth, then the entrepreneur is advised to adopt a broad range of networks, which is likely to result in more weak ties and, therefore, the dissemination of more information. The built environment professionals described their current network ranges, respectively. Those that depicted their network range as vast and widespread had further categorised their network into a smaller, more closely-knit group of members, upon which they currently relied for the provision and/ or exchange of essential resources. This assertion revealed that within a professional's extensive and continuously developing formal network range there seemingly exists a more intimate network range comprising of key professional protagonists, who form a part of the built environment professionals' functional network. One could, therefore, say that within a pool of weak ties, there exists a smaller, more cohesive group of network members within it. The findings have illustrated that, while a broad range of networks was considered beneficial for various reasons, a more cohesive formal network set was highly favoured.

Network Intensity

Watson (2007) hypothesises that network intensity and network range share an inverse relationship. An analysis of the data revealed that network intensity in emergent firms tended to be high mainly attributed to the built environment professionals' rigorous efforts of connecting and communicating more with their network in the pursuit of business opportunities and resources. As the firms had become increasingly established, it was described that an increase in network range had resulted in decreasing network intensity with some contacts within the network. The findings are in line with Watson's (2007) observation that as an entrepreneur pursues a broad range of networks, this may result in the infrequent contact of the

network contact-base; while alternatively a narrower range enables the network to be accessed with more intensity.

Evolution of Entrepreneurial Networks

The built environment professionals illustrated the non-static nature of networks (Hite & Hesterly 2001), by describing how their networks had evolved over their duration within the built environment industry as SME owner-managers. This description has validated Hite and Hesterly's (2001) assertions that entrepreneurial networks evolve concurrently with the business, where these networks continuously evolve in relation to the changing resource needs and challenges of the firm. The findings have shown that the entrepreneurial network composition as defined by network ties, network range and network intensity has, in certain instances, not evolved in the manner prescribed by the literature. This has partly been attributed to the fact that the empirical research has not been able to relate distinct networking behaviour to the defined time periods specified in accordance with the organisational life cycle, which has been extended as a measure of firm progression (Hite & Hesterly 2001; Low & Abrahamson 1997). The findings have holistically recounted how the built environment professionals' networks evolved from business inception to their current, respective, operating standpoints.

5.4.2 Firm Development

As previously stated the data could not adequately address the 'emergent' and 'early-growth' stage firm inquiry because most of the firms observed had been operating for more than five years. This occurrence has not detracted from the significance of the findings. Two identified areas of discussion, which have emerged from the data, challenge the applicability of the organisational life cycle as the all-inclusive measure of firm progression.

Serial Entrepreneurship

In most instances, the built environment professionals were found to be serial entrepreneurs who were already administering their second, third or fourth formally registered entity within the industry. The age of the SME firms operated by the built environment professionals, therefore, did not represent their extensive track record,

the number of years of industry experience accumulated, as well as the valuable contacts integrated into their firms. Low and Abrahamson (1997) have suggested that organisations evolve in a predictable manner, which is useful in reflecting how the challenges encountered differ at each stage of the organisation's existence. By only considering the firm's age as a measure of its progression, the organisational life cycle "stage method" does not adequately regard the influence that the built environment professionals' resources have on their firm's progressive development.

The Personality of the Entrepreneur

The data has shown that an entrepreneur's personality can influence their networking behaviour and firm evolution. Hite and Hesterly (2001) advocate that an organisational life cycle is beneficial in structuring the general processes of firm evolution, as each stage not only depicts changes over time, but also highlights the nature and extent of a firm's resource needs and acquisition challenges. In classifying firms according to their age, the organisational life cycle does not adequately consider the entrepreneur's personality, ambition and business motivation. An analysis of the data has revealed how some firms are intentionally small by design, where the built environment professionals have consciously made the decision to operate at small business-levels, for myriad reasons that have an effect on the subsequent growth and development trajectory that the business in turn follows. It can, therefore, be stated that firm evolution, cannot be solely classified in accordance with the prescribed stages of the organisational life cycle.

This section has discussed the pertinent research findings. The discussion has presented the built environment professionals' networking behaviour, the network composition as delineated by network ties, network range and network intensity, a description of the evolution of entrepreneurial networks, as well as a view on firm development and the two identified subjects which challenge the applicability of the organisational life cycle as the all-inclusive measure of firm progression. The section to follow offers a critical reflection of the overall research process.

5.5 Limitations of the Research

In considering the evolution of entrepreneurial networks of emergent and early growth owner-managed SME firms within the South African built environment, several factors have presented limitations to this study, the implications of which should be recognised when considering the results presented in this study. The networking behaviour of South African built environment professionals is a relatively unexplored subject, and has warranted the use of international literature and theories. The factors that have limited the generality of the illustrated propositions have been the differences identified between individual built environment professionals, with specific reference to their perceptions on networking and their business development outlook.

The built environment professionals interviewed over the course of this study have tended to leverage from previous industry affiliations and extensive career experiences, integrating their broader, functional networks within their respective business endeavours. In the interviews held with the identified professionals, it was apparent that in certain instances, the firms had not necessarily adhered to the prescribed network composition and firm progression outlined in the propositions.

Another identified limitation is that the built environment professionals observed within this study differed in their own individual propensities to form network relationships, which has, to a certain extent, compromised the applicability of this study's propositions. A majority of the built environment professionals interviewed during the course of this study were no longer operating in the emergent or early growth stages of the organisational life cycle, as their respective firms had been in operation for more than five years. To counteract this shortfall, the research questions were posed in a "then" and "now" manner. This has placed significant reliance on the interviewees' retrospection, which might be less reliable and valid. Although the interviewees were requested to provide retrospective narratives, as a means of relaying richer and more intuitive descriptions of their respective networking activities, it is acknowledged that this has exposed the study to 'hindsight bias and post-hoc rationalisation' (Klyver & Terjesen 2007, p. 683). Cognisance should, however, be given to the fact that this study has

enabled the interviewees to recount and narrate their individual networking experiences, and has not merely been conducted with the intention of verifying factual data.

In case study research multiple sources of evidence are referred to (Yin 1994). This study, has, however, only mainly relied upon interviews and direct observations. The dearth of interviewees was another limiting factor encountered during the data collection phase of this study. This was attributed to impossible schedules, impending project deadlines and strenuous time restrictions. In addition, the researcher's geographical location, inadequate time allowed for data collection, as well as budget restrictions all compounded in rendering additional limitations to the unit of analysis, which was restricted to the built environment professionals operating within the greater Cape Town region.

5.6 Critical Reflection

This study has sought to investigate the evolution of entrepreneurial networks of South African built environment owner-managed SME firms operating within the emergent and early growth stages of the organisational life cycle. This observation has been made by investigating the networking behaviour of the professionals owning and managing these firms.

A qualitative, interpretive and inductive philosophical framework has been implemented in this study. This is attributed to a prevalent trend in network research that has essentially seen preference for 'quantitative research techniques and large-scale surveys' over qualitative output (Jack 2010, p. 100). While these quantitative techniques have been useful in portraying the structural features of networks and measuring the extent of networking activity, such methods have provided limited information on the 'content of relations and what actually goes on in and between the connections' (Jack 2010, p. 120). The application of qualitative approaches within network research, therefore, enables the derivation of a more in-depth understanding of what goes on inside a network, by providing 'knowledge about the content of network relations, the processes involved, how networks evolve, change and develop over time, as well as the extent to which networks support and/or constrain the ways in which entrepreneurs and their ventures

function, operate and are managed’ (Jack 2010, p. 120). An interpretive stance has allowed the study to unfold through the assistance of its research informants (Hudson & Ozanne 1988). The main rationale that has propelled the implementation of a qualitative, interpretive, inductive philosophical framework to this study has been the degree of uncertainty surrounding the topic, as well as the paucity of prior research conducted on the networking behaviour of built environment professionals.

This study has adopted a single case study research methodology, which has incorporated an embedded design because of the clear and distinct highlighted propositions. These propositions have provided this study with anchorage and direction and have not discouraged the emergence of new and pertinent themes. In adopting the snowball sampling technique, this study has been able to capitalise on the built environment professionals’ social networks, to identify other interviewees who would otherwise be hard to locate or access. The snowball sampling strategy began with two contacts known to the researcher through this study’s research supervisor. These initially identified contacts, in turn, offered referrals to other built environment professionals, matching the pre-determined criteria, for participation within this study. The initial contacts were acknowledged within the resulting correspondence with the subsequently referred professionals. It was found that in acknowledging the “referrer”, the referred professionals became more willing and enthusiastic about giving of their time and agreeing to be interviewed.

This study has adopted a semi-structured interviewing style. Data was collected through conducting interviews with built environment professionals. These professionals identified themselves as the owner-manager of the SME firm. They were, therefore, capable of answering the questions posed and recounted their respective experiences of their duration within the industry as well as their experiences in administering their SMEs. The data was analysed by adopting thematic analysis as the principal data analysis technique, upon which the interpretations of the findings of this dissertation have been based. Thematic analysis categorically codes the themes pertaining to the data set on the basis of commonality. This study has applied NVivo 8, as the data management

programme through which the findings have been conveyed. The programme's query tools have enabled the researcher to see the emergence of subtle trends and patterns within the data.

The sampling group was restricted to only those built environment professionals operating within the greater Cape Town region, to enable ease of access, with respect to the researcher's geographical situation. A majority of the built environment professionals interviewed during the course of this study were no longer operating in the emergent or early growth stages of the organisational life cycle, as their respective firms had been in operation for more than five years. This outcome posed a challenge in generating an adequate discussion around the two distinct stages of the organisational life cycle, under examination. To counteract this shortfall, these built environment professionals were asked instead to provide a retrospective account of their individual experiences within distinct interludes of their firms' existence, specifically their emerging stage, as well as their current operating stage (to the present day). The researcher posed the questions in a "then" and "now" manner, which enabled all of the interviewees to recount their experiences within their current operating business, without biasing or categorising them. This essentially allowed each entrepreneur to narrate their own individual experience, which relayed a richer, more intuitive description of their individual networking activities.

Although this study has been unable to adequately address the classification of the reviewed firms in accordance to the organisational life cycle extended by the literature, it has highlighted the entrepreneurial networking activities of the interviewed built environment professionals, by drawing attention to how their entrepreneurial networks have been incorporated into their respective business undertakings. This study has revealed that networking behaviour is individualistic in nature, guided predominantly by an individual's personality, ambition and business motivation. The shortfalls encountered in this current study can be resolved in future research. The validity of this study can be improved upon, by observing a larger sample over a larger geographical area, for a longer period of time.

5.7 Implementable Research Recommendations

This section presents implementable recommendations based on the research findings observed.

Measures for Firm Evolution

The adoption of the organisational life cycle as a measure for firm progression should be revisited. As is seen above, themes such as serial entrepreneurship, personality, ambition and business motivation challenge the applicability of the organisational life cycle within the current day business environment. This being said, the idea of the organisational life cycle, should perhaps be augmented to consider additional factors and the resultant influence that these factors may have on the trajectory of the firms' progression.

Marketing South African Built Environment Firms

Built environment professionals should exercise their prerogative and intuition in implementing sound marketing strategies, customized to suit their respective firms. Increasing marketing, advertising and brand awareness, can generate valuable business exposure.

Social networking media

Online social networks provide a technological means to maintaining the existing relationships within one's social sphere and in most instances also provide the means for the development of new ones. The rapid development of online social networking sites and increasing popularity amongst all generations is confirmation that there is extensive transformation within the realm of social networks. Social networking media are changing the business landscape, and are providing alternative means by which built environment professionals can enhance the relations between their respective networks, through enabling communication channels.

Functional Network

While a wider network contact base significantly increases the probability of information flow (Granovetter 1985), an increase in the network range often results in the decrease in network intensity. This to a certain extent detracts from the quality of the relationship shared with the network members. It is, therefore, vital to ensure that the network is functional, whether expansive or restrained. Optimal benefits can be derived from networks, once the quality of the relationships is prioritised.

5.8 Recommendations for Future Research

This section presents a list of topics recommend for future research. A suggestion is presented on how future research can improve upon this current study. The other recommendations made have emerged from the research findings.

- An observation of the networking activity of members of the built environment professional team, by conducting a longitudinal study comprising of a broader sample.
- An investigation into the dynamic cross-referral network between the various professions within the South African built environment in relation to project procurement, essentially highlighting hierarchy in project allocation and inter-dependency between professions.
- An examination of the importance of entrepreneurial networks and networking in relation to the conventional marketing of professional services of built environment firms and the significance of referral work.
- An inquiry into the applicability of the organisational life cycle approach as a measure of firm progression.
- An examination of serial entrepreneurship as a challenge to the organisational life cycle stage method.

5.9 Summary and Conclusions

SMEs are essential in addressing unemployment in South Africa. They are beneficial in enabling a more equitable distribution of wealth within the built environment industry. SMEs enhance a more competitive environment particularly within the built environment industry. This is mainly attributed to their ability to control and limit overheads, as well as enabling a platform for the further development of medium to large-scale entities, administered by previously disadvantaged practitioners (DTI 1995).

Entrepreneurial networks are central in the successful emergence and growth of firms, as they facilitate critical channels in the acquisition of beneficial resources (Hite & Hesterly 2001). Built environment professionals owning and managing SMEs need to remain inventive in order to gain and retain competitive advantage within an increasingly competitive industry; this impels built environment professionals to adopt an entrepreneurial stance in their respective business strategies, wherein networking constitutes a vital role. The purpose of this dissertation has, therefore, been to examine the evolution of entrepreneurial networks of South African owner-managed SME firms, in the emergent and early growth stages, operating within the built environment. This was done by observing the networking behaviour of the built environment professionals, by investigating the network composition adopted over the duration of their respective businesses.

A qualitative, interpretive and inductive philosophical framework has been related to the case study research method. Interpretivism is contextually grounded (Kazanchi & Munkvold 2002), thus allowing a study to develop through the assistance of its research informants (Hudson & Ozanne 1988). This study applied the single case study as the chosen research methodology and semi-structured interviews were undertaken during the data collection phase. The application of qualitative approaches within network research extends a more in-depth understanding of what goes on inside a network, providing knowledge about 'the content of network relations; the processes involved; how networks evolve, change and develop over time, as well as the extent to which

networks support and/or constrain the ways in which entrepreneurs and their ventures function, operate and are managed' (Jack 2010, p. 120).

The findings have suggested that the process of building the relationships constituting a network is individualistic, guided predominantly by an individual's personality, ambition and business motivation. The findings disclosed that some of the built environment professionals had entered into their respective businesses with a pre-established formal network, which was beneficial in providing the essential support structures required primarily during the emerging stages of the observed firms. The built environment professionals that had integrated strong ties within their businesses did not restrict the involvement of their informal networks to defined stages of their business life. The formal network discussion extended by the data closely resembled Hite and Hesterly's (2001) assertions that as firms progress into the early growth stage, the entrepreneur's networks evolve towards more calculative ties which provide access to beneficial resources for the firms. The findings illustrated this perspective, by describing that the built environment professionals had tended towards a wider network base, a movement away from their limited range of networks, as their firms had continue to develop. The built environment professionals illustrated the non-static nature of networks (Hite & Hesterly 2001), by describing how their networks had evolved over their duration within the industry. This description validated Hite and Hesterly's (2001) assertions that entrepreneurial networks evolve concurrently with the business, where these networks continuously evolve in relation to the changing resource needs and challenges of the firm.

It was found that the entrepreneurial network composition of the South African built environment, owner-managed SMEs observed had not evolved in a particular set manner. This was mainly attributed to the individualism surrounding the propensity to build up the relationships constituting a network. This view made it difficult to provide generic commentary on the entrepreneurial network evolution of South African built environment professionals, because each of the observed professionals applied different networking philosophies within their respective business practices, and their

entrepreneurial network compositions did not necessarily adhere to the network evolution prescribed by the literature. Additionally, the “emergent” and “early-growth” stage firm inquiry could not adequately be addressed because most of the firms observed had been operating for more than five years.

5.9.1 Broad Impacts and Intellectual Merit of the Research

This research topic advances knowledge within two distinct fields of research, namely, “networks” and “entrepreneurship”. These research fields have been applied to the South African built environment context, where it was established that the empirical research conducted within these respective fields has mainly been of a positivist, deductive nature. There has been limited prior investigation and lack of substantial literature available on the evolution of entrepreneurial networks and the networking behaviour of South African built environment professionals, operating owner-managed SME firms. This study has, therefore, explored a unique and potentially transformative concept, within a South African contextual setting. This study has conveyed that South African built environment professionals owning and managing SMEs need to remain inventive in an increasingly competitive industry, by adopting an entrepreneurial stance in their respective business strategies, wherein networking constitutes a vital role. It is therefore imperative for these built environment professionals to ensure that their network is functional, whether expansive or restrained, as optimal benefits can be derived from networks, once the quality of the relationships is prioritised. This study is revelatory in nature and has brought enlightenment to the entrepreneurial networks and networking behaviour of built environment professionals, within a South African context.

REFERENCES

- Agumba, JN 2006, 'Evaluating the Use of Project Management Techniques in Infrastructure Delivery by South African Small and Medium-sized Contractors', Masters Dissertation in Construction Management, Faculty of Engineering and the Built Environment, University of Johannesburg: Pp. 15-21.
- Ahuja, G 2000, 'The Duality of Collaboration: Inducements and Opportunities in the Formation of inter-firm Linkages', *Strategic Management Journal*, Volume 21, pp. 317–343.
- Aldrich, HE 1999, *Organizations Evolving*. Sage Publications: London.
- Aldrich, HE & Martinez, MA, 2001, 'Many are Called, But Few Are Chosen: An Evolutionary Perspective for the Study of Entrepreneurship', *Entrepreneurship: Theory and Practice*, Summer: p. 47
- Aldrich, HE & Reese, PR 1993, 'Does Networking Pay Off?' A Panel Study of Entrepreneurs in the Research Triangle. In N. C. Churchill, JA Hornaday, BA Kirchoff, OJ Krasner & KH Vesper (Eds.), *Frontiers of Entrepreneurship Research*, Babson College: Babson, MA: pp. 325-399.
- Aldrich, H, Rosen, B & Woodward, W 1987, 'Social Behaviour and Entrepreneurial Networks'. In N. C. Churchill, JA Hornaday, BA Kirchoff, OJ Krasner & KH Vesper (Eds.), *Frontiers of Entrepreneurship Research*, Wellesley, Babson College, MA: pp. 239-245.
- Aldrich, HE & Zimmer, C 1986, 'Entrepreneurship Through Social Networks', In Sexton, DL, Smilor, R (Eds.) *The Art and Science of Entrepreneurship*, Cambridge: pp. 3-23
- Allinson, CW, Chell, E & Hayes, J 2000, 'Intuition and Entrepreneurial Behaviour', *European Journal of Work and Organizational Psychology*, Volume 9, Issue 1: pp. 31 – 43.

Amaratunga, D & David, D 2001, 'Case Study Methodology as a Means of Theory Building: Performance Measurement in Facilities Management Organisations', *Work Study*, Volume 50, Number 3: Pp. 95 – 105

Anderson, AR & Jack, S 2002, 'The Articulation of Social capital in Entrepreneurial Networks: A Glue or a Lubricant?', *Entrepreneurship and Regional Development*, Volume 14, Number 3: pp. 193–210.

Attride-Stirling, J 2001, 'Thematic Networks: An Analytic for Qualitative Research', *Qualitative Research*, Volume 1, Number 3: pp. 385 – 405.

Barker, RL 1999, *The Social Work Dictionary*, 4th Edition, NASW Press: Washington DC

Baron, RA & Markman, GD, 2000 'Beyond Social Capital: How Social Skills Can Enhance Entrepreneurs' Success', *Academy of Management Executive* Volume 14, Number 1: pp. 106–116.

Bhide, A 1999, *The Origin and Evolution of New Businesses*, The Oxford University Press: Oxford.

Birley, S, 1985, The Role of Networks in the Entrepreneurial Process, *Journal of Business Venturing*, Volume 1, Number 1: pp. 107–117.

Birley, S, Myers, A & Chromie, S 1989, 'Entrepreneurial Networks: Some Concepts and Empirical Evidence', *The 12th National Small Firms Policy and Research Conference*, The Barbican, London.

Birley, S, Cromie, S & Myers, A 1991, 'Entrepreneurial Networks: Their Emergence in Ireland and Overseas', *International Journal of Small Business*, Volume 9.

Blackburn, RA, Curran, J & Jarvis, R 1990, 'Small Firms and Local Networks: Some Theoretical and Conceptual Explanations', *XIII Small Firms Policy and Research Conference*, Harrogate.

Botma, Y, Greeff, M, Mulaudzi, FM & Wright, SC 2010, *Research in Health Sciences*, Pearson Education South Africa (Pty) Ltd. Cape Town, RSA.

Boyd, DM & Ellison, NB 2008, 'Social Network Sites: Definition, History and Scholarship', *Journal of Computer-Mediated Communication*, Volume 13: pp. 210 – 230.

Brackertz, N 2007, Working Paper: *Who Is Hard to Reach and Why*: Available [Online] <http://www.sisr.net/publications/0701brackertz.pdf> [Retrieved] 21 April 2011.

Brink, H, Van der Walt C, Van Rensburg G 2006, *Fundamentals of Research Methodology for Health Care Professionals*, 2nd Edition, Juta and Company: Cape Town

Brown, B & Butler, JE 1993, 'Networks and Entrepreneurial Development: The Shadow of Borders'. *Entrepreneurship and Regional Development*, Volume 5: pp.101-116.

Brüderl, J & Preisendörfer, P 1998, 'Network Support and the Success of Newly Founded Businesses', *Small Business Economics*, Volume 10: pp. 213–225.

Bryman, A 1984, 'The Debate About Quantitative and Qualitative Research: A Question of Method or Epistemology', *The British Journal of Sociology*, Volume 35, Number 1: pp 75 – 93.

Bryson, J, Wood P & Keeble, D 1993, 'Business Networks, Small Firm Flexibility and Regional Development in the U.K. Business Services', *Entrepreneurship and Regional Development*, Volume 5: pp. 265-277.

Burney, SM 2008, 'Inductive and Deductive Research Approach': Pp 1 – 22. Available [Online]<http://www.drburney.net/INDUCTIVE%20&%20DEDUCTIVE%20RESEARCH%20APPROACH%2006032008.pdf> Retrieved on 10 November 2010.

Burrell, G & Morgan, G 1979, *Sociological Paradigms and Organisational Analysis*, Ashgate Publishing Company, Aldershot: p. 4.

Burt, RS 1992, *Structural Holes: The Social Structure of Competition*, Harvard University Press, Cambridge, MA.

Burt, RS, Janotta, JE & Mahoney, JT 1998, 'Personality Correlates of Structural Holes', *Social Networks* Volume 20, Number 1: pp. 63–88.

Butler, J & Hansen, GS, 1991, 'Network Evolution, Entrepreneurial Success, and Regional Development', *Entrepreneurship and Regional Development*, Volume: pp.1-16.

Bygrave, W & Minniti, M 2000, 'The Social Dynamics of Entrepreneurship', *Entrepreneurship Theory and Practice*, Volume 24, Number 3: pp. 25- 36.

Castillo, JJ 2009, *Cluster Sampling*, Retrieved [10 November 2010] from Experiment Resources: <http://www.experiment-resources.com/cluster-sampling.html>

Charmaz, K 2006, *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*, London: Sage

Chell, E & Baines, S 2000, 'Networking, Entrepreneurship and Microbusiness Behaviour', *Entrepreneurship & Regional Development*, Volume 12, Number 3: pp. 195 – 215.

Churchill, NC & Lewis, VL 1983, 'The Five Stages of Small Business Growth', *Harvard Business Review*, Volume 61, Number 3: pp. 30 – 50.

Cohen, L & Manion, L 1994, *Research Methods in Education*, 4th Edition, London: Routledge: pp. 36.

Cohen, L, Manion, L & Morrison, K 2000, *Research Methods in Education*. New York: Routledge.

Coleman, JS 1990, *Foundations of Social Theory*. Harvard University Press: Cambridge, MA.

Cooper, AC, Woo, CY & Dunkelberg, WC 1988, 'Entrepreneurs' Perceived Chances for Success' *Journal of Business Venturing*, Volume 3, Number 2: pp. 97–108.

Creswell, JW 1994, *Research design: Qualitative & quantitative approaches*. Thousand Oaks, CA: Sage.

Creswell, JW 2002, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Upper Saddle River, NJ: Pearson Education.

Creswell, JW 2003, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 2nd Edition. Thousand Oaks: Sage: p. 9.

Cromie, S 1994, 'Entrepreneurship: The Role of the Individual in Small Business Development', *IBAR*, Volume 15: pp. 62 – 75.

Curran, J & Blackburn, RA 1993, 'Local Economies and Small Firms: A View from the Ground', In Chittenden, F., Robertson, M., Watkins, D., (Eds.), 'Small Firms: Recession and Recovery', *Institute for Small Business Affairs*, Paul Chapman Publishing, London.

Curran, J & Blackburn, RA 1994, 'Small Firms and Local Economic Networks: The Death of the Local Economy', *Institute for Small Business Affairs*, Paul Chapman Publishing, London.

Denzin, K 1983, *Interpretive Interactionism*. In Garth Morgan (Ed.), *Beyond Method: Strategies for Social Research*, Beverly Hills, CA: pp. 159 – 146.

Department of Public Works 2008, 'Policy Document on the Proposed Amendments of the Statutory Regulatory Framework of the Built Environment Professions Bill', March 2008: pp. 2 - 24.

Department of Trade and Industry 1995, 'White paper on National Strategy for the Development and Promotion of Small Business in South Africa', Republic of South Africa.

Dodd, SD 1997, 'Social Network Membership and Activity Rates: Some Comparative Data', *International Small Business Journal*, Volume 15, Number 4: pp. 80 – 87.

Donckels, R & Lambrecht, J 1995, 'Networks and Small Business Growth: An Explanatory Model', *Small Business Economics*, Volume 7: pp. 89 – 273.

Driver, A, Herrington, M, Segal, N & Wood, E 2001, *Global Entrepreneurship Monitor, South African Executive Report*, University of Cape Town – Center for Innovation and Entrepreneurship: pp. 3-16

Dubini, P & Aldrich, H 1991, 'Personal and Extended Networks are Central to the Entrepreneurial Process', *Journal of Business Venturing*, Volume. 6: pp. 13- 305.

Duchesneau, DA, & Gartner, WB 1990, 'A Profile of New Venture Success and Failure in an Emerging Industry', *Journal of Business Venturing*, Volume 5, Number 5: pp. 297–312.

Eisenhardt, K 1989, 'Building Theories from Case Study Research', *Academy of Management Review*, Volume 14, Number 4: pp. 532-550.

Elfring, T & Hulsink, W 2003, 'Networks in Entrepreneurship: The Case of High-Technology Firm', *Small Business Economics*, Volume 21, Number 4: pp. 409–422.

Elg, U & Johannisson, U 1996, 'Networking When National Boundaries Dissolve: The Swedish Food Sector', *European Journal of Marketing*, Volume 30, Number 2: pp. 61 – 74.

Erickson, E & Yancey W 1980, 'Class, Sector and Income Determination', Unpublished paper, Department of Sociology, Temple University.

Faugier, J & Sargeant, M 1997, 'Sampling Hard to Reach Populations' *Journal of Advanced Nursing*, Volume 26: Pp. 790–797.

Fayolle, A 2007, *Entrepreneurship and New Value Creation: The Dynamic of the Entrepreneurial Process*, Cambridge University Press, Cambridge, UK: p. 30

Filion, LJ 1997, 'Le champ de l'entrepreneuriat: historique, evolution, tendances', *Cahiers de recherche* 97.01, HEC Montreal: p. 3.

Fitzgerald, B & Howcroft, D 1998, 'Toward Dissolution of the IS Research Debate: From Polarization to Polarity', *Journal of Information Technology*, Volume 13: pp. 313-326.

Friedkin, NE 1980, 'A Test of Structural Features of Granovetter's Strength of Weak Ties Theory', *Social Networks*, Volume 2: p. 273.

Galaskiewicz, J 1996, *The New Network Analysis and Its Application to Organisational Theory and Behaviour*, in Icobucci, D. (Ed), *Networks in Marketing*, Sage Publications, Thousand Oaks, CA: pp 19 – 31.

Galaskiewicz, J & Zaheer, A 1999, *Networks of Competitive Advantage*. In Bacharach, S.B (Ed.) *Research in the Sociology of Organizations*, Volume 16: JAI Press: Greenwich, CT: pp. 237-262.

Gartner, W, Bird, B & Starr, J 1992, 'Acting As If: Differentiating Entrepreneurial from Organisational Behaviour', *Entrepreneurship Theory and Practice*, Volume 6, Number 3: pp. 13-31.

Geringer, JM 1988, *Joint Venture Partner Selection*, Quorum Books, New York, NY.

Gerring, J 2004, 'What is a Case Study and What Is It Good For?', *American Political Science Review*, Volume 98, Number 2: pp. 341 – 354.

Gibson, W 2006, *Thematic Analysis*: Available [Online]
www.ilit.org/air/files/thematic_analysis.doc [Retrieved] 10 November 2011: p. 3.

Gibson, W & Brown, A 2009, *Working with Qualitative Data*, Sage Publications: pp. 1 – 232.

Gilmore, A & Carson, D 1999, 'Entrepreneurial Marketing by Networking', *New England Journal of Entrepreneurship*, Volume 12, Number 2: pp. 8 - 31.

Gilmore, A, Carson, D & Grant, K 2001, 'SME Marketing in Practice' *Marketing Intelligence and Planning*, Volume 19, Number 1: pp. 6 – 11.

Golafshani, N 2003, 'Understanding Reliability and Validity in Qualitative Research', *The Qualitative Report*, Volume 8, Number 4: pp. 597 – 607.

Granovetter, MS 1973, The Strength of Weak Ties, *American Journal of Sociology*, Volume 78: pp. 1360-1380.

Granovetter, MS 1982, *The Strength of Weak Ties: A Network theory Revisited*, In P.V. Marsden and Nan Lin (Eds.) *Social Structure and Network Analysis*, Sage: Beverly Hills, CA.

Granovetter, MS 1985, 'Economic Action and Social Structure: The Problem of Embeddedness' *American Journal of Sociology*, Volume 91: pp. 481-510.

Granovetter, M 1992, *Problems of Explanation in Economic Sociology*. In: Nohria N, Eccles R, editors. *Networks and Organizations: Structure, Form, and Action*. Harvard Business School Press, Boston, MA: pp. 25–56.

Greve, A & Salaff, J 2003 'Social Networks and Entrepreneurship', *Entrepreneurship Theory and Practice*, Volume 28, Number 1: pp. 1–22.

Guba, EG & Lincoln, YS 1981, *Effective Evaluation: Improving the Usefulness of Evaluation Results Through Responsive and Naturalistic Approaches*, San Francisco, CA: Josey-Bass.

Gulati, R & Gargiulo, M 1999, 'Where Do Inter-Organisational Networks Come from?' *American Journal of Sociology*, Volume 104, Number 5: pp. 1439 – 93.

Gulati, R & Lawrence, P 1999, 'The Diversity of Embedded Ties', Working paper. JL Kellogg, Graduate School of Management, Northwestern University, Evanston: IL.

Gulati, R, Nohria, N & Zaheer, A 2000, 'Strategic Networks', *Strategic Management Journal*, Special Issue, Volume 21, Number 3: pp. 203 -217.

Hansen, E 1995, 'Entrepreneurial Networks and New Organization Growth', *Entrepreneurship: Theory and Practice*, Volume 19, Number 4: pp. 7–21.

Hammersley, M 1992, *What's Wrong with Ethnography?*, London, Routledge.

Hite, JM 1999, 'Embedded Network Ties in Emerging Entrepreneurial Firms: Patterns, Processes and Paths', Doctoral Dissertation, University of Utah: Salt Lake City, UT.

Hite, JM 2000, 'Patterns of Multidimensionality of Embedded Network Ties in Emerging Entrepreneurial Firms', *Academy of Management Proceedings* ENT: E5: pp. 1- 7.

Hite, JM 2005, 'Evolutionary Processes and Paths of Relationally Embedded Network Ties in Emerging Entrepreneurial Firms', *Entrepreneurship Theory and Practice* Volume 29, Number 1: pp. 113–144.

Hite, JM & Hesterly, WS 2001, 'The Evolution of Firm Networks: From Emergence to Early Growth of the Firm', *Strategic Management Journal*, Volume 22, Number 3: pp. 275–286.

Hoang, H & Young, N 2000, 'Social Embeddedness and Entrepreneurial Opportunity Recognition: (More) Evidence of Embeddedness' Working paper.

Hoang, H & Antoncic, B 2003, 'Network-based Research in Entrepreneurship: A Critical Review', *Journal of Business Venturing*, Volume 18, Number 2: pp. 165–187.

Hudson, LA & Ozanne, JL 1988, 'Alternative Ways of Seeking Knowledge in Consumer Research', *Journal of Consumer Research*, Volume 14, March: pp. 508-521

Hunt, SD 1994, 'On the Rhetoric of Qualitative Methods: Towards Historically Informed Argumentation in Management Inquiry', *Journal of Management Inquiry*, Volume 3, Number 3: pp. 221-234.

Ibrahim, JG, Chen, MH & Maceachern, SN 1999, 'Bayesian Variable Selection for Proportional Hazards Models', *Canadian Journal of Statistics*, Volume 27: pp. 701–17.

Jack, SL 2010, 'Approaches to Studying Networks: Implications and Outcomes', *Journal of Business Venturing*, Volume 25: pp. 120 – 127.

Jack, SL, Drakopolou, DS, Anderson, AR 2008, 'Change and the Development of Entrepreneurial Networks over Time: A Processual Perspective', *Entrepreneurship and Regional Development*, Volume 20, Number 2: pp. 125–159.

Johannisson, B 1986, 'New Venture Creation: A Network Approach', in R. Ronstadt, (eds.), *Frontiers of Entrepreneurship Research*, Wellesley, Babson College, MA: pp. 38- 236.

Johannisson, B 1988, 'Business Formation: A Network Approach', *Scandinavian Journal of Management*, Volume 31 Number 3/4: pp. 83-99

Johannisson, B, Alexanderson, O, Nowicki, K & Senneseth, K 1994, 'Beyond Anarchy and Organization: Entrepreneurs in Contextual Networks', *Entrepreneurship and Regional Development*, Volume 6, Number 3: pp. 329–356.

Johnston, LG, & Sabin, K 2010, 'Sampling Hard-to Reach Populations with Respondent Driven Sampling', *Methodological Innovations Online*, Volume 5, Number 2: pp. 38 – 48.

Joyce, P, Wooles, A & Blacks, S 1995, 'Networks and Partnerships: Managing Change and Competition', *Small Business and Enterprise Development*, Volume 2, Number 1: pp. 11-18.

Kalleberg, A, Marsden, P, Aldrich, H. & Cassell, J 1990, Comparing Organisational Sampling Frames, *Administrative Science Quarterly*, Volume 35, p. 658.

Kazanchi, D & Munkvold BE 2000, 'Is Information Systems a Science? An Inquiry into the Nature of the Information Systems Discipline', *The Data Base for Advances in Information Systems*, Volume 31 Number 3: pp. 24-42.

Kazanchi, D & Munkvold, BE 2002, 'On the Rhetoric and Relevance of IS Research Paradigms: A Conceptual Framework and Some Propositions', *Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS'03)*: pp. 1 – 10.

Kazanjian, RK, Drazin, R 1989, 'An Empirical Test of a Stage of Growth Progression Model', *Management Science*, Volume 35, Number 12: pp. 1489 – 1503.

Kerlinger, FN 1986, *Foundations of Behavioural Research*, 3rd Edition, CBS College Publishing: New York: p. 10.

Kerlinger, FN 1973, *Foundations of Behavioural Research*, 2nd edition, Holt Rinehart and Winston, London.

Klein, HK, Hirschheim, R & Nissen, H 1991, *A Pluralist Perspective of the IS Research Arena*. In Nissen, Klein and Hirschheim (Eds.), *IS Research: Contemporary Approaches and Emergent Traditions*, Amsterdam: Elsevier Science Publications (North-Holland).

Klein, HK & Myers, MD 1999, 'A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems', *MIS Quarterly, Special Issue on Intensive Research*, Volume 23, Number 1: pp. 67-93.

Klyver, K & Terjesen, S 2007, Research Note: 'Entrepreneurial Network Composition: An Analysis Across Venture Development Stage and Gender', *Women in Management Review*, Volume 22, Number 8: pp. 682 – 688.

Knight, FH 1921, *Risk, Uncertainty and Profit*, 1964 edition, New York: Augustus M. Kelley.

Knox, PL & Ozolins, P 2000, *Design Professionals and the Built Environment*. By John Wiley & Sons, Ltd Baffins Lane, Chichester, West Sussex PO19 1UD, UK: p. 3.

Kodithuwakku, SS & Rosa, P 2002, 'The Entrepreneurial Process and Economic Success in A Constrained Environment', *Journal of Business Venturing*, Volume 17, Number 5: pp. 431–465.

Kohler, N & Moffat, S 2003, 'Life-Cycle Analysis of the Built Environment', *Sustainable Building and Construction*, April – September 2003: pp.17 – 21.

Krackhardt, D 1992, *The Strength of Strong Ties: The Importance of Philos in Organizations* In N. Nohria and R. G. Eccles (eds.), *Networks and Organizations: Structure, Form and Action*, HBS Press, Cambridge, MA: pp. 216–239.

Kuhn, T 1962, *The Structure of Scientific Revolutions*, The University of Chicago Press, Chicago, IL.

Kuzel, A & Engel, J 2001, 'Some Pragmatic Thought on Evaluating Qualitative Health Research'. In Morse J, Swanson J, & Kuzel A (Eds.), *The Nature of Qualitative Evidence* (pp. 114 – 138), Thousand Oaks, CA : Sage Publications.

Larson, A & Starr, J 1993, 'A Network Model of Organization Formation' *Entrepreneurship: Theory and Practice*, Volume 18: pp. 5–15.

Lester, DL, Parnell, JA, Crandall, W & Menefee, ML 2008, 'Organisational Life Cycle and Performance Among SMEs: Generic Strategies for High and Low Performers', *International Journal of Commerce and Management*, Volume 18, Number 4: pp. 313 – 330.

Lin, AC 1998, 'Bridging Positivist and Interpretivist Approaches to Qualitative Methods', *Policy Studies Journal*, Volume 26, Number 1: p. 162.

Lin, N, Ensel, WM & Vaughn, JC 1981, 'Social Resources and Strength of Ties: Structural Factors in Occupational Status Attainment', *American Sociological Review*, Volume 46: pp. 393 – 405.

Lin, N 1982, *Social Resources and Instrumental Action*. In P. Marsden & N. Lin (Eds.) *Social and Network Analysis*. Beverly Hills, CA: Sage Publications.

Lincoln, YS & Guba, EG 1985, *Naturalistic Inquiry*, Beverly Hills, CA: Sage Publications.

Lorenzoni, G & Lipparini, A 1999, 'The Leveraging of Inter-firm Relationships as a Distinctive Organisational Capability: A Longitudinal Study', *Strategic Management Journal*, Volume 20, Number 4: pp. 317–338.

Loury, G 1977, *A Dynamic Theory of Racial Income Differences*. In P.A. Wallace and A.M. LaMonde (Eds) *Women, Minorities and Employment Discrimination*, Lexington Books, Lexington, MA: pp. 153 – 185.

Low, MB, Abrahamson, E 1997, 'Movements, Bandwagons and Clones: Industry Evolution and the Entrepreneurial Process', *Journal of Business Venturing*, Volume 12, Number 6: pp. 435–457.

Mariti, P & Smiley, RH 1983, 'Co-operative Agreements and the Organization of Industry', *Journal of Industrial Economics*, Volume 31: pp. 437–51.

McClelland, DC 1961, *The Achieving Society*, Van Nostrand, Princeton, NJ

McKechnie, I 2008, *Let's Define What the Built Environment Covers* [Online] <http://www.engineeringnews.co.za/article/lets-first-define-what-the-built-environment-covers-2008-09-26> [Accessed on:] 5 May 2010.

Mertens, DM 2005, *Research Methods in Education and Psychology: Integrating Diversity with Quantitative and Qualitative Approaches*, 2nd Edition, Sage, Thousand Oaks: p. 12.

Miles, MB 1979, 'Qualitative Data as an Attractive Nuisance: The Problem of Analysis', *Administrative Science Quarterly*, Volume 24: pp. 590-601.

Miles, MB & Huberman, AM 1994, *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd Edition, Sage: Newbury Park, CA

Mitchell, JC 1969, *The Concept and Use of Social Networks*, In Mitchell J.C. (Ed.) *Social Networks in Urban Situations*, Manchester University Press, Manchester: pp. 1 – 50.

Mitchell, JC 1973, *Networks, Norms and Institutions*, In Boissevain J. And Mitchell, J.C. (Eds.) *Network Analysis Studies in Human Interaction*, Mouton and Company, The Hague: pp. 15 – 35.

Morris, MH, Pitt, LF & Berthon, P 1996, 'Entrepreneurial Activity in the Third World Informal Sector: The View from Khayelitsha', *International Journal of Entrepreneurial Behaviour & Research*, Volume 2, Number 1: pp. 59-62.

Morrison, A 2000, 'Entrepreneurship: what triggers it?' *International Journal of Entrepreneurial Behaviour & Research*, Volume 6, Number 2: pp. 59-62

Morse, JM, Barrett, M, Mayan, M, Olson, K & Spiers, J 2002, 'Verification Strategies for Establishing Reliability and Validity in Qualitative Research', *International Journal of Qualitative Methods*, Volume 1, Number 2: pp. 1 – 17.

Munhall, P 2001 *Nursing Research: A Qualitative Perspective*, Third Edition, National League for Nursing, Jones and Bartlett Publishers, Canada.

Mutezo, AT 2005, 'Obstacles in the Access to SMME finance: An Empirical Perspective on Tshwane', University of South Africa, Department of Business Management, M.Com Dissertation.

Myers, MD 1997, *Critical Ethnography in IS*. In Lee, AS, Liebenau, J, & DeGross, JI. (Eds), *IS and Qualitative Research*, Chapman and Hall, London.

Neegard, H 2005, 'Networking Activities in Technologically-based Entrepreneurial Teams', *International Small Business Journal*, Volume 23, Number 3: pp. 257-278.

Nelson, R 1988, 'Social Network Analysis as an Intervention Tool', *Group and Organization Studies*, Volume 13, Number 1: pp. 39–58.

Nicholas, T 2003, 'Why Schumpeter Was Right: Innovation, Market Power and Creative Destruction in 1920s America', *Journal of Economic History*, Volume 63, Number 4: pp. 1023 – 1058.

O'Donnell, A, Gilmore, A, Cummins, D & Carson, D 2001, 'The Network Construct in Entrepreneurship research: A Review and Critique', *Management Decision*, Volume 39 Number 9: pp. 749–760.

Olkkonen, R, Tikkanen, H. & Alajoutsijarvi, K 2000, 'The Role of Communication in Business Relationships and Networks' *Management Decision*, Volume 38, Number 6: pp. 403 – 9.

Orford, J, Herrington, M & Wood, E 2004, 'Global Entrepreneurship Monitor, South African Executive Report', University of Cape Town – Center for Innovation and Entrepreneurship.

Orlikowski, WJ & Baroudi, JJ 1991, 'Studying Information Technology in Organizations: Research Approaches and Assumptions', *Information Systems Research*, Volume 2, Number 1: pp. 1-28.

Parkhe, A, Wasserman, S & Ralston, DA 2006, 'New Frontiers in Network Theory Development' *Academy of Management Review*, Volume 31, Number 3: pp. 560–568.

Piercy, NF & Cravens, DW 1995, 'The Network Paradigm and the Marketing Organisation: Developing a New Management Agenda', *European Journal of Marketing*, Volume 29, Number 3: pp. 7 – 34.

Philips, DC 1987, *Philosophy, Science, and Social Inquiry: Contemporary Methodological Controversies in Social Science and Related Applied Fields of Research*, Pergamon Press, Oxford, England: p. 205.

Portes, A & Sensenbrenner, J 1993, 'Embeddedness and Immigration: Notes on the Social Determinants of Economic Action', *American Journal of Sociology*, Volume 98: pp. 1320-1350.

Potts, AJ 1977, 'A Study of the Success and Failure Rates of Small Businesses and the Use or Non-Use of Accounting Information', Unpublished Doctoral Thesis: The George Washington University, Washington, DC.

Powell, WW 1990, 'Neither Market nor Hierarchy: Network Forms of Organization'. In: Cummings, LL, Staw, BM (Eds.), *Research in Organisational Behaviour*. Volume 12: pp. 295–336.

Powell WW, Koput, KW & Smith-Doerr, L 1996, 'Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology', *Administrative Science Quarterly*, Volume 41, Number 1: pp. 116–145.

Premaratne, SP 2001, 'Networks, Resources and Small Business Growth: The Experience in Sri Lanka', *Journal of Small Business Management*, Volume 39, Number 4: pp. 363–371.

Punch, KF 2005, *Introduction to Social Research: Quantitative and Qualitative Approaches*, Sage Publications, Thousand Oaks, CA: pp 1 – 271.

Putnam, RD 1995, 'Bowling Alone: America's Declining Social Capital', *Journal of Democracy*, Volume 6: pp. 65 – 78.

QSR International 2008, *NVivo 8 Getting Started*: Available [Online] www.qsrinternational.com Retrieved on 18 August 2010: Pp 1 – 26.

Remenyi, D, Williams, B, Money, A. & Swartz, E 1998, *Doing Research in Business and Management*, Sage Publications, London: p. 309.

Rowlands, BH 2005, 'Grounded in Practice: Using Interpretive Research to Build Theory', *The Electronic Journal of Business Research Methodology*: Pp 82 – 91. Available [Online] www.ejbrm.com Retrieved on: 10 November 2010.

Rowley, T, Behrens, D & Krackhardt, D 2000, 'Redundant Governance Structures: An Analysis of Structural and Relational Embeddedness in the Steel and Semi-conductor Industries', *Strategic Management Journal*, Volume 21: pp. 369–386.

Rozakis, LE 2004, *The Complete Idiot's Guide to Research Methods*, Marie Butler-Knight, New York.

Ryckman, RM 2000, *Theories of Personality (7th Edition)*, Wadsworth/Thompson Learning: Stamford, Connecticut: p. 5

Saldana, J 2009, *The Coding Manual for Qualitative Researchers*, Thousand Oaks: Sage California: pp. 1 – 223.

Sawyer, JE 1958, 'Entrepreneurial Studies: Perspectives and Directions', *The Business History Review*, The President and Fellows of Harvard College, Volume 32, Number 4: pp. 434 – 443

Saxenian, AL 1990, 'Regional Networks and the Resurgence of Silicon Valley', *California Management Review*, Volume 33, Number: pp. 89 – 112.

Saxenian, AL 1991, 'The Origins and Dynamics of Production Networks in Silicon Valley', *Resolution Policy*, Volume 20, Number 5: pp. 423–437.

Schell, C 1992, 'The Value of the Case Study as a Research Strategy: Manchester Business School', Available [Online] <http://www.finance-mba.com/Case%20Method.pdf> [Retrieved] on 10 November 2010: pp. 1 – 15.

Scholtz, RW & Tietje, O 2002, *Embedded Case Study Methods: Integrating Quantitative and Qualitative Knowledge*. Sage Publications, Thousand Oaks, CA: pp. 1 - 392.

Schumpeter, JA 1911, *Theori der Wirtschaftlichen Entwicklung*. Duncker and Humbolt, Berlin.

Schumpeter, JA 1928, *Der Unternehmer*, in Ludwig Elster *et al.* (Eds.) 1928 *Handwörterbuch der Staatswissenschaften* 4th edition: Jena: p. 483. In: Hartmann, H 1959, 'Managers and Entrepreneurs: A Useful Distinction', *Administrative Science Quarterly*, Volume 3, Number 3, pp. 429-451.

Schumpeter, JA 1934, *The Theory of Economic Development*, Harvard University Press, Cambridge, MA.

Schumpeter, JA 1950, *Capitalism, Socialism and Democracy*, Harper & Row, New York, NY

Shane, S & Venkataraman, S 2000, 'The Promise of Entrepreneurship as a Field of Research', *Academic Management Review*, Volume 25: pp. 42- 217.

Shanks, G 2002, 'Positivist, Single Case Study Research in Information Systems: A Critical Analysis', *Positivist Single Case Study Research*: pp. 1 – 12.

Singh, RP, Hills, GE, Lumpkin, GT & Hybels, RC 1999, 'The Entrepreneurial Opportunity Recognition Process: examining the Role of Self-Perceived Alertness and Social Networks', Paper presented at the 1999 *Academy of Management Meeting*, Chicago, IL.

Smeltzer, LR, Van Hook, BL & Hutt, RW, 1991, 'Analysis and Use of Advisors as Information Sources in Venture Start-ups', *Journal for Small Business Management*, Volume 29, Number 3: pp. 10–20.

Smith, DA, Lohrke, FT 2008, 'Entrepreneurial Network Development: Trusting in the Process', *Journal of Business Research*, Volume 61: pp. 315 – 322.

Smith, NC 1990, 'The Case Study: A Useful Research Method for Information Management', *Journal of Information Technology*, Volume 5: pp. 123 – 133.

Spekman, RE 1996, *A Reflection on Two Decades of Business-to-Business Marketing Research*, In Iacobucci, D. (Ed.) *Networks in Marketing*, Sage Publications, Thousand Oaks, CA: pp. 8- 15.

Staber, U 1996, *Networks and Regional Development: Perspectives and Unresolved Issues*, In Staber, U.H., Schaefer, N. V., Sharma, B., (Eds.) *Business Networks: Prospects for Regional Development*, Walter de Gruyter, Berlin.

Statistics South Africa 2010, 'Quarterly Labour Force Survey, Quarter 3: Statistical Release P0211' Available[Online]<http://www.statssa.gov.za/publications/P0211/P02113rdQuarter2010.pdf> Accessed on 23 February 2011: pp. 1-80.

Strauss, A 1987, *Qualitative Analysis for Social Scientists*. New York: Cambridge University Press.

Stuart, TE, Hoang, H & Hybels, RC 1999, 'Inter-organisational Endorsements and the Performance of Entrepreneurial Ventures', *Administrative Science Quarterly*, Volume 44: pp. 315–349.

Szarka, J 1990, 'Networking and Small Firms', *Journal of International Small Business*, Volume 8, Number 2: pp. 10-22.

Teddlie, C & Tashakkori, A 2009, *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioural Sciences*, CA: Sage Publications.

Thomas, AS & Mueller, SL 2000, 'A Case for Comparative Entrepreneurship: Assessing the Relevance of Culture', *Journal of International Business Studies*, Volume 31, Number 2: pp. 287 – 301.

Thomas, DR 2006, 'A General Inductive Approach for Analyzing Qualitative Evaluation Data', *American Journal of Evaluation*, Volume 27, Number 2: pp. 237 – 246.

Timmons, JA 1999, *New Venture Creation: Entrepreneurship for the 21st Century*. Burr Ridge: Irwin.

Timmons, JA & Spinneli, S 2003, *New Venture Creation, Entrepreneurship for the 21st Century*. Boston and others: McGraw Hill International Edition.

Trauth, EM 2001, *Qualitative Research in IS: Issues and Trends*, Idea Group Publishing, Hershey, PA. USA: p. 4.

Trochim, WK 2006, *The Research Methods Knowledge Base*, Available [Online] 5 May 2010, <http://www.socialresearchmethods.net/kb/contents.php>

Tsai, W & Ghoshal, S 1998, 'Social Capital and Value Creation: The Role of Intrafirm Networks', *The Academy of Management Journal*, Volume 41, Number 4: pp. 464 – 476.

Uzzi, B 1996, 'The Sources and Consequences of Embeddedness for the Economic Performance of Organization: The Network Effect', *American Sociological Review*, Volume 61: pp. 98 – 674.

Uzzi, B 1997, 'Social Structure and Competition in Inter-firm Networks: The Paradox of Embeddedness', *Administrative Science Quarterly*, Volume 42, Number 1: pp. 35-67.

Walker, G, Kogut, B, Shan, W 1997, 'Social Capital, Structural Holes and the Formation of an Industry Network', *Organization Science*, Volume 8: pp. 109-125.

Walsh, M 2003, 'Teaching Qualitative Analysis Using QSR NVivo'. *The Qualitative Report*, Volume 8, Number 2: pp. 251 – 256.

Wasserman, S & Faust, K 1994, *Social Network Analysis: Method and Application*, New York: Cambridge University Press.

Watson, J 2007, 'Modelling the Relationship between Networking and Firm Performance', *Journal of Business Venturing*, Volume 22: pp. 852-874.

Weber, M 1904, *From Max Weber: Essays in Sociology*. HH Gerth and CW Mills, translated and edited (1948), Routledge & Kegan Paul, London.

Welman, JC & Kruger, SJ 2001, *Research Methodology for Business and Administrative Sciences*, Oxford University Press, 2nd Edition, Cape Town.

Williamson, OE 1975, *Markets and Hierarchies: Analysis and Antitrust Implications*, Free Press, New York, NY.

Yin, RK 1984, *Case Study Research: Design and Methods*, Sage Publications, Beverly Hills, CA.

Yin, RK 1986, *Case Study Research: Design and Methodology (Applied Social Research Methods)*, Academic Press, 3rd Edition: pp. 1 – 80.

Yin, RK 1994, *Case Study Research: Design and Methods*. 2nd Edition, Sage Publications, Thousand Oaks, CA.

Yin, RK 2003, *Case Study Research: Design and Methods*, 3rd Edition. Sage, Beverly Hills, California

Zaheer, A McEvily, B & Perrone, V, 1998, 'Does Trust Matter? Exploring the Effects of Inter-organisational and Interpersonal Trust on Performance', *Organization Science*, Volume 9, Number 2: pp. 141-159.

Zhao, L, Aram, JD 1995, 'Networking and Growth of Young Technology-Intensive Ventures in China', *Journal of Business Venturing*, Volume 10, Number 5: pp. 349–370.

APPENDICES

APPENDICES

APPENDIX A: INTERVIEW QUESTIONS

1. PART A: THE FIRM

1.1 In which year did you begin working as a professional within the built environment?

1.2 Can you give a brief background as to how you began in this industry?

1.3 How long has your current business been in operation?

1.4 What type of projects does your business mainly get involved in?

1.5 In your line of business which other professionals do you closely work with?

2. PART B: NETWORK TIES – Strong Ties and Weak Ties: Relevance and Importance

2.1 Describe your network before you started this specific business.

2.2 During the initial months of setting up this specific business currently under operation, which individuals and/or professionals provided you with the required support?

2.3 Which individuals and/or professionals currently provide you with any required support?

2.4 Describe how the contacts and connections within your network have changed since the inception of your business.

3. PART C: NETWORK RANGE

- 3.1 Approximately how many individuals did your business network comprise during the emerging stages of this business?
- 3.2 How has the size of your network changed over the duration of your business?
- 3.3 Describe how accessible your network members were during the emerging stages of your business.
- 3.4 Describe the manner in which you currently access your network members, are they all still equally as accessible?
- 3.5 How have your network contacts and connections evolved from the point at which you began your business, do you still maintain contact with the same individuals?

4. PART D: NETWORK INTENSITY

- 4.1 How frequently do you currently communicate with the members of your network?
- 4.2 How does your communication differ between the individual network members?
- 4.3 How would you describe the types of network members that you seldom contact?
- 4.4 How has the frequency of your communication with your network members changed from the inception of your business to its current position?
- 4.5 How would you assess and describe your business network over the duration of this current business?

APPENDIX B: EXAMPLE OF AN INTERVIEW TRANSCRIPT

Interview with a Project Manager

- TL: In which year did you begin working as a professional within the built environment?
- TM: Hmm, '95.
- TL: '95. And prior to that what had you been involved in?
- TM: Studying at UCT. Yeah.
- TL: Studying. What did you study?
- TM: Quantity Surveying
- TL: Quantity Surveying. Can you give us a brief background as to how you began in the industry?
- TM: Prior to studying or?
- TL: Uh, prior to starting your business. Post '95 to now.
- TM: Ok, I worked for a Quantity Surveying company, from '95 to 2000. In 1999 a group of my friends and I decided, a couple of them were Architects, others were Engineers and others were Quantity Surveyors, decided that we actually wanted to do our own thing and uh we started off thinking about property development. We got together a broader group of friends in the financial services and basically put together what we called our investment group [TL: Ok] Ja. And invested on the stock exchange, SATRIX, and contributed money and eventually that helped us to get started on our own business [TL: Ok], which was a property development business, we soon realised we needed more than just good intentions to do property development and we decided to go into project management uhm, which was relatively new in South Africa at the time, as a means to building up a profile, track record and of course generating cash flow whilst trying to put together property deals [TL: Ok], so that's actually how we got started uhm on the entrepreneurship side. Eventually, the 4 of us who were operationally involved in the company, broke away from the others, there were 12 of us all in all, broke away and continued with the, with the project management company, which we called [The Company]. I then broke away from [The Company] in 2007 uhm. We had grown the business it had, we employed about 40 people [TL: OK], we had branches in Cape Town, Joburg, Mafikeng, Kimberley and

in 2007 I decided that I was going to take over the Cape Town business and go it by myself [TL: Ok], and that's how I formed [The Current Company].

TL: Ok, so it sort of branched off from [The Company] the Cape Town office? [CROSS TALK].

TM: The Cape Town office. Ja.

TL: Ok, and how long has your current business been in operation?

TM: Since 2007.

TL: Ok. And so what types of projects does your business mainly get involved in?

TM: Our focus areas are health projects, so we're doing a hospital, Khayelitsha Hospital. We completed uhm an emergency unit for Somerset Hospital for the World Cup. We are mainly focused on upgrading and refurbishing shopping centres. We did a couple of refurbishments at the V&A waterfront and we're currently busy with one Tygervally shopping centre and another in PE, Green Acre shopping centre. So we're looking at retail, uhm, retail, health, and tertiary institutions as our 3 core areas of focus.

TL: Ok. And so in your line of business which other professionals do you tend to work closely with.

TM: Ahh, there Architects, Quantity Surveyors, Engineers. I mean we work with project teams [TL: Yes] or the client. So on any given project at the very least, we'll have an Architect on board, we'll have a Quantity Surveyor, Structural, Electrical, Mechanical, uhm. Those really form the core of the other professions we work with

TL: Ok, so just to clarify, [The Current Company] is a Project Management company.

TM: It's a Project Management company.

TL: Ok. So now we're going to talk about the networks. Uh, can you please describe your network before you started this specific business?

TM: My network was my classmates [TL: Ok], not necessarily my classmates, my peers at university. That was my core. You know I came from Lesotho, and I came to Cape Town, and the people I met in my time at university have remained the core going through. So those are the people I studied with, played football with, socialised with. And ironically, 20 years later, are the people I'm doing business with. Ja

- TL: Hmm. Ok. And so during the initial months of setting up this specific business, which individuals or professionals provided you with any required support?
- TM: None [LAUGHS] [TL: Yes] Uhm, the biggest form of support is trying to get clients [TL: Yes]. And at the time that we started, there were one or two clients in organisations like the City Council, who liked what we were trying to do and supported us with uhm small projects to get us started [TL: Ok]. Ja. That's, I mean anyone will tell you that the most critical thing is to get the deal flow, get the clients, get the projects. [TL: Ja] And that helped us.
- TL: Ok, and so currently which individuals or professionals provide you with support.
- TM: Again it depends what you define by support. In a business sense, there various tiers of support that are required, for instance you need legal support, accounting support [TL: Ja], uhm, technical support on the projects, which would be those sort of consultants [TL: Ja], those disciplines that I spoke about. But most importantly again, is the support of your clients, you know, the people who have faith in you to appoint you to look after their multi-million rand projects. That's the most crucial aspect for us is getting that right.
- TL: So how do you procure work and essentially the clients that give you the work?
- TM: Now what has happened is that my peers of the '90's have now gone and progressed and are quite influential in their organisations, so some of my friends, are in the Life companies, the Liberties, Old Mutual's and what have you, and those networks uhm have now come to bear, you know. [TL: Ok] So our responsibility was to build up a network... a track record, get credibility and what have you, and once we had that behind us, we were able to go back and reconnect with some of our old uhm acquaintances and say "this is what we've done, this is what we're doing and we'd like to, you know." So personal relationships are really really important. The other way we procure work is by tendering, you know, that's a straight up competition, ja. Those are the two main... [TL: Interrupts]
- TL: In corporate and Government? Or predominantly Government?
- TM: Corporate and Government. On the corporate side, our main... On the corporate side it's predominantly who we know [TL: Ok. Yes], Ja. That's where our networks are, the UCT graduates are now uhm, top and and middle-management in the

corporates and they're really important for us on the corporate side. On the Government side we do a lot of tendering, parastatals and what have you, and uhm if you've previously had an appointment and you've done it well, then the referral with those uhm profession.. those client representatives you had is much easier.

TL: Ok. So referrals.

TM: Ja. Referrals, based on performance [TL: Based on performance, yes], in Government, Ja.

TL: Ok, and so can you describe how your contacts and connections have changed since you started out the business? [TM: Ja] If they've changed.

TM: They have. I learned a lesson that... We started off as a black business, you know it was 100% black-owned, black operated, black everything and our expectation at the time, was that we were going to be supported by other black people and Government and what have you, and that wasn't the case. Uhm, the people who were willing to take a risk on us were white [TL: Ok], Ja. So, the woman who recommended us at the City of Cape Town, is a white, white woman, my first private job was with a Jewish developers, uhm, at the V&A Waterfront, it was a Afrikaner guy, so the lesson I learned is that when you start out, don't go to your traditional source of support, coz rarely will you find a support there. [TL: Yes] What happens over time, is that as your business matures, and it develops a track record and everything, then your traditional base comes in. And at that point, when the traditional base comes in, it really allows you to grow. But in the early, formative stages, you know, it's amazing. It's the sources that you least expect. Ja.

TL: Ok. And so talking about the size of your network, approximately how many individuals, did your business network comprise during the emerging stages?

TM: Okay you'll have to switch off and get me a calculator [LAUGHS].

TL: Just approximately.

TM: Wow [THINKING], see I was involved in a number of organizations. I was involved in the Association of South African Quantity Surveyors, which helped to profile me, I was on the committee, and then I was involved in SABTACO: South African Black Technical and Allied Careers. And through the work that we did in those organisations, my exposure to people uhm was a lot broader than what it would

normally [TL: Yes], would have been. So at a guess, you know I would say that, by the time we started the business I would have had, round about a hundred odd. [TL: plus, a hundred plus]

TL: And has that size changed over the time that you've been in business?

TM: [THINKING] It's grown, that hundred was in Cape Town only, now it's grown to Joburg you know, where most of, where most of the old school ties are based.

TL: So does [The Current Company] just base its business in Cape Town, or has it branched out all over the country?

TM: We're busy establishing a Joburg office this year. [TL: Ok] Ja. Ja. And again, it's because of the networks that we've developed up there. So I would say that my network base has probably [THINKING], maybe 4, 5 hundred people [TL: Ja, ja]. Ja.

TL: Are you still involved in those, we'll I'd call them networking organisations, where you join like specific groups that support your career and your business?

TM: I did that at the beginning. I mean I was part of.. I was involved in the Black Management Forum, uhm, SABTACo and that sort of stuff. What I've done now, and as a result of that I served on boards of other entities like the Cape Town Partnership, [TL: Ok], which you know, which really broadened that scope hugely, uhm. Those organisations are no longer about supporting, providing a support, like you know the Black Management Forum is about providing support and SABTACo, and those are... The organisations that I've become involved in are now more outward looking [TL: Ok], you know. Cape Town Partnership was all about repositioning the CBD of Cape Town, you know as the major centre you know, and.. So that's where my energies have now focused, and as a result of that, you know, the network has really grown. Uhm, I'm a member of SAPOA, South African Property Owners Association. Every year we have a SAPOA conference, thousands of people attend that, every year you know the networking opportunity just grows and grows. So yeah.

TL: Do you find that you do meet, I mean people you, you talk business at those events?

TM: Oh definitely, definitely, definitely.

- TL: Ok. And so can you describe the manner in which you would currently go about accessing your network members, are they you know easy to come into contact with?
- TM: I chase them! [LAUGHS] [TL: Yes] Look I do a lot of web-based research. The way I work is that, uhm, I study the economy. I study trends, uhm in the economy, and the likely growth areas that will emerge over a 3 to 5 year period [TL: Ok]. Based on those areas then I look at the companies that are active in those areas, and it's amazing once you start doing searches on the companies, you almost always find somebody you know, either involved in the company or who can, who knows somebody else in the company [TL: Ok]. So that's... You've got to do your research, I believe, you've got to develop a strategy, and flowing out of your strategy comes your targets and then identifying the key people who can assist you in unlocking those opportunities. [TL: Ok] Ja.
- TL: And so how would you say your network, network contacts have evolved from the point at which you began your business, would you say still maintain contact with the same individuals that you started off with?
- TM: Hmm. Very much so. Property, property, the property industry in South Africa is such that it's really run by the same uhm large groupings [TL: Yes], and they as entities do not necessarily change, you know. Uhm, the V&A Waterfront is still a major property, Airports Company is still a major uh developer, the likes of the pension funds. Those are the major players and some of the listed property groups. Those are the major players and over a 10 year period, yes there's movement, there's change, but generally you find that the people who are involved in the industry stay in the industry. [Yes, ok] Ja.
- TL: And so how frequently would you say you currently communicate with your network members?
- TM: Uhm, is this a question of hourly, weekly monthly? [LAUGHS]
- TL: Yeah sort of. [LAUGHS] Well not hourly I would hope but... [LAUGHS]
- TM: Uhm, [THINKING] it's difficult to say because, as I said different, there ebbs and flow, right. So the people in my targeted network at the moment I make it a point to at least speak with them fortnightly. [TL: Ok] Those are the ones in my target network.

Then of course existing clients, you have to keep in touch with, and I'd say I'll have a conversation with my existing clients either weekly or fortnightly you know, at least. Prospective targets, the ones your chasing, you might harass them a bit [TL: Yes], trying to get an interview, trying to get this. But ja.

TL: Ok, and so how would you describe those network members that you seldom contact. The ones that you'll maybe just keep at an arm's length? [TM: As important?] If there are?

TM: No there are. You know it's an amazing thing that, the big lesson is, never burn your bridges in your industry. Uhm, networks which may seem inconsequential, at some point come up and you realise a link and there's, you know. So just coz you're not talking to them at the moment, doesn't mean you should discard them. [TL Yes] Very, very crucial. Everybody you know, don't make enemies now [TL: Yes, yes, yes].

TL: Ok, how would you say you go about marketing? So what's your marketing strategy?

TM: Delivery is the big thing. We do a couple of things. We... There not very many black-owned project management companies in South Africa period [TL: Yes] that do commercial work. A lot of the companies focus on Government work. So number 1 we're registered on all the databases of companies that we know do uhm, project work. We are active in SAPOA, the South African Property Owner's Association. That's where all the listed property guys, the pension fund properties and every... and we do a lot of networking with them, and within that [TL: Yes]. Uhm, then on completion of projects we profile our projects, you know, through PR. So when a project is successfully completed and launched, we'll run a PR campaign around it in newspapers in public media, and you know that sort of stuff, because we've had to... What we've always wanted to do is shift from communicating about our potential to communicating about our results. [OK. That track record that you were talking about] That track record, [TL: Yes]. Ja. So you know it's all very well and good going out and saying, "we're the most exciting black company, we're this, we're this, we're this, we're capable of this", but it's a whole lot better to have your project featured in the Wednesday Property Times, being launched, the ribbon being cut and the tenants and owners commenting about what a great project it is, [TL: Yes, yes, yes] you know, that far more weight. And then the other thing is your branding. You

know that every project has a project board [TL: Yes], you know, uhm we take our project boards quite seriously, because that, when people are driving around, that is a visual representation of work in action, you know. Uhm we've developed our logo and branding such that it's recognisable. Ja. So when you walk or drive past a project board, our logo uhm is recognisable, you know. Those are the things which move us from being potential-nice-to-haves, to being operational, work-in-hand and people actually seeing, "wow these guys are actually doing these projects" [TL: Yes, these types of projects]. Ja. Ja. So it's a mixture, and last and most definitely not least is that personal networking, the schmoozing. Going out for drinks, going you know... Just spending time with people.

TL: So has there ever been a time, where your personal networks and your professional networks have sort of coincided, like you meet someone on the job, and they end up become a friend?

TM: Yes, very much. Very much. I've got some very good friends now. There's nothing quite like struggling on a very difficult job together and getting through it. It builds a sense of camaraderie. Our job as Project Managers is partly to build a team spirit, and togetherness for, around the pursuit of the same objective, which is to deliver the project. And uhm, and sometimes in the process you develop trust relationships and you become friends. That happens a lot. [TL: Ok] Ja.

TL: And has there been a time when you've involved family in your business and what's your view on that?

TM: Our line of business is technical, specialised, and uhm none of family is! [LAUGHS] My family [LAUGHS] But at some point, you know the one the one thing about property is that it affects everybody. Everybody uhm sleeps somewhere, sleeps in a building, lives in a building [TL: Yes], buys buildings, you know, rents buildings you know. And at some point in time, you know I see the involvement of my family in building up an investment property portfolio [TL: Yes] ja. And that's... [TL: So long term?] Yes, Ja. Ja.

TL: And so finally, how would you in an overall kind of sort of way, assess and describe your business networks over the duration of your current business?

- TM: Well essentially they evolved, they evolved from a core group of friends, uhm, socialising, doing stuff that we do at UCT and that sort of stuff, uhm and then for a period of time, involved building new networks through cold calling and getting work and you know... But the most valuable networks have now come to be those same original networks, that we built in our tertiary institution time, you know. Those networks are absolutely valuable. Not only because they were social, but people actually have a genuine interest in seeing you succeed [TL: Yes], you know, they share more than just a professional interest, they know you uhm, they've seen the best and worst of you, they know your struggles everything, and see where you've gotten to, and now when you deal with them, you know, they actually, everybody wants each other to do well [TL: Yes]. Ja. So they're the most crucial one's as far as I'm concerned [TL: Ok], and that's how, that's really how it's changed. When you first started working you didn't even think of them because they were all juniors, working their way up within their organisations, they were, they were your friends, they weren't there yet, but 6, 7, 8 years, they started climbing the corporate ladder, becoming very influential, now they're the business. [TL: LAUGHS: Ok, ok, ok] Ja.
- TL: I think that's it we've covered everything.
- TM: Ok.
- TL: Thank you very much. [END]

APPENDIX C: THE INTRODUCTION EMAIL

Dear Sir/Madam,

thank you in advance for agreeing to participate in this academic research interview. This study considers the evolution of networks of individuals operating SME firms within the South African built environment.

The interview questions will enquire about your business networks over the life-span of your business, from its inception to its current stage. There are three specific areas of interest, particularly: The relationship with your network members; the size of your network; and the frequency of contact with your network members. Some of the questions posed may require a recollection back to the emerging stages of your business, and an interpretation of how things may have changed.

Please be assured that your ANONYMITY is guaranteed. Your response to any of the questions posed need not include any names or any personal details of your network contacts, purely just their role within your network and/or their profession.

Kind Regards,

Thabi Letsie